

4.1.6 ECS Registry GUI

The ECS Registry GUI is a management tool for ECS applications. The GUI interface allows users to create and update parameter information. Registry data is warehoused in a registry database. The ECS Registry GUI is used to perform the operator functions listed in Table 4.1.6-1.

Table 4.1.6-1. Common ECS Operator Functions Done Using the Registry GUI

Operator Function	Description	When and Why to Use
Copy	Copy selected item and store contents into a buffer.	Useful when new parameters are similar to existing parameters.
Move	Move selected item.	When a node is in the wrong location.
Paste	Pastes contents of buffer.	After a node of choice has been selected.
Map	Associate an attribute tree to a mode.	Attribute trees contain configuration specific data. Attribute trees can be mapped, with an explanation, to a mode, which corresponds to a specific task.
Add	Add a new node to an attribute tree.	Add a node to represent the configuration specific data.
Delete	Deletes a node.	When a node is no longer necessary.
Rename	Renames a node.	A software change can require a name change to a node.
Attribute History	Displays historical data for the selected attribute.	When the "Attribute Information" window is displayed, an operator can view attribute historical data. There may be a problem starting an application's server due to an incorrect value (i.e., DebugLevel = 7). The operator can review changes made using the "Attribute history window". Refer to Table 4.1.6-12 "Attribute Information" for more information.

4.1.6.1 Quick Start Using the ECS Registry GUI

The Registry GUI is invoked through Unix commands as follows:

```
>setenv DISPLAY <current_host IP>:0.0
```

```
>EcCsRgRegistryGUIStart <mode>
```

where:

<current_host IP> is the IP address of the host on which to run the GUI

<mode> is the mode to which the configuration parameters apply (e.g., OPS, TS1, or TS2)

4.1.6.2 User Interface Name Main Screen

Before displaying the ECS Registry main screen, the user must login to the ECS Registry Database. The login window is shown in Figure 4.1.6-1.



Figure 4.1.6-1. Registry GUI Database Login Window

Table 4.1.6-2 describes the various information, control, and data fields in the login window.

Table 4.1.6-2. Registry GUI Database Login Fields

Option/Field Name	Data Type	Size	Description
"Database Login"	Display Only	-	Window title.
User Id	Text	-	User ID (Automatically filled).
Password	Text	-	Enter Password.
Server	Text	-	Enter Configuration Registry Database server name.
"Sign On"	Button.	-	Logs onto the Registry Database.
"Exit"	Button.	-	Cancels the login transaction.

On successful login, the ECS Registry Main Screen, as shown in Figure 4.1.6-2, appears. On this screen there is an attribute tree named "DROOPY," displaying one host node called "dss1." Attribute tree "DROOPY" is mapped to mode ARAO. All attribute trees are *root* nodes. Attribute information displays mapped modes.

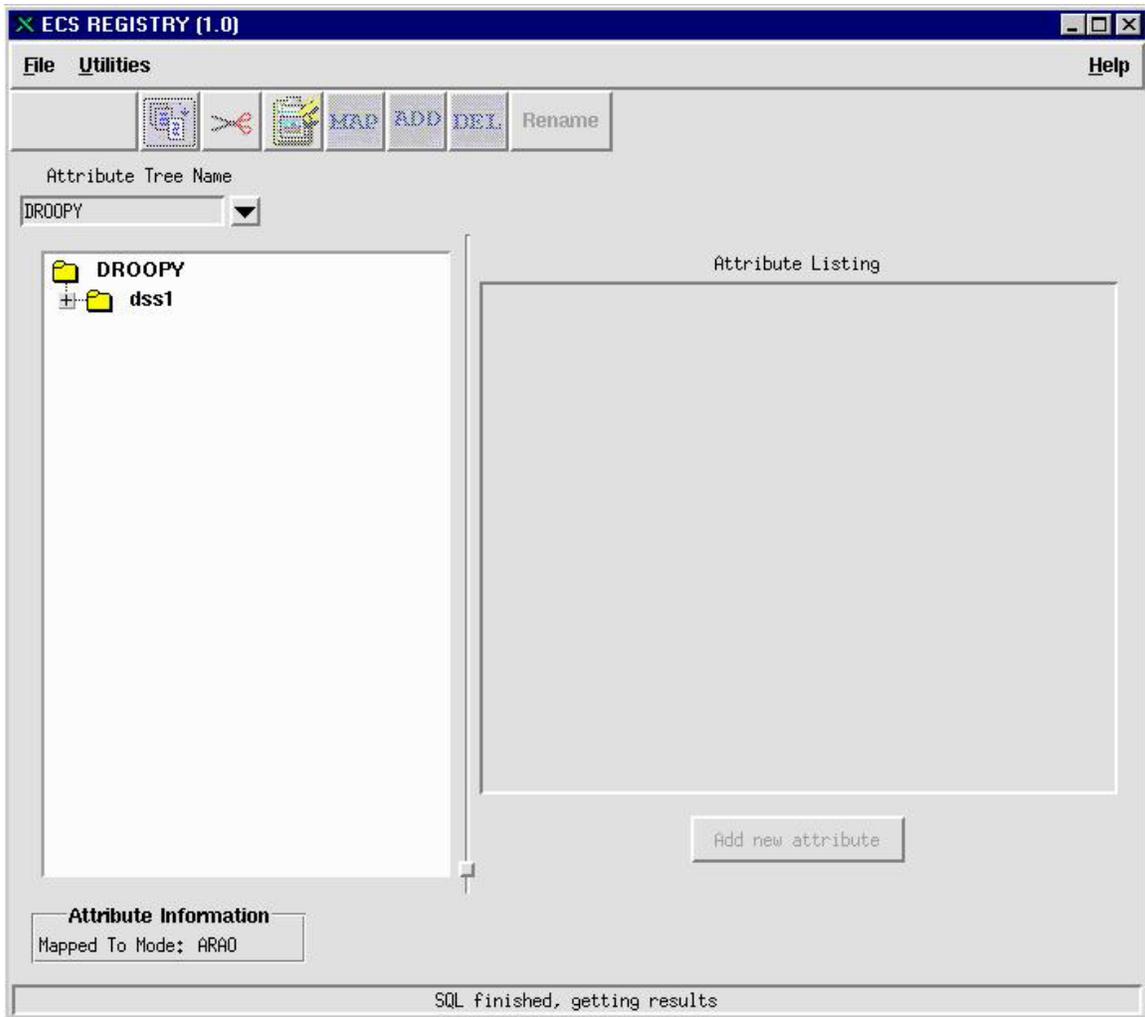


Figure 4.1.6-2. ECS Registry Main Window

Table 4.1.6-3 describes the informational, control, and data entry fields of the Registry main window.

Table 4.1.6-3. Information, Control and Data Entry Fields on the ECS Registry GUI Main Window

Field Name	Data Type	Size	Description
Attribute Tree Name	Click down arrow.	-	Displays a list of defined attribute trees.
Copy	Button	-	Copy the selected item and store contents into a buffer. See Section 4.1.6.3
Attribute Information	Label	-	Displays the currently mapped mode.
Add new attribute	Button	-	Adds a new attribute. Enabled when a node is selected.
Move	Button	-	Move the selected item. See Section 4.1.6.2.4
Paste	Button	-	Pastes contents of the paste buffer. See Section 4.1.6.2.4 for an example.
Map	Button	-	Associate an attribute tree to a mode. See Section 4.1.6.2.2
Add	Button	-	Add a new node to an attribute tree. See Section 4.1.6.2.1
Del	Button	-	Deletes a node. See Section 4.1.6.2.6
Rename	Button	-	Renames a node. See Section 4.1.6.2.5
Status line	Text	-	Displays status messages.

The following menu bar options are available on the ECS Registry main window:

- **File** – provides the following options
 - **Exit** – terminates the GUI
- **Utilities** – provides the following options
 - **Clear log file contents** – Clears the log file
- **Help** – provides user help information

4.1.6.2.1 Adding a New Node

Figure 4.1.6-3 represents step 1 in adding a new node to an attribute tree. Select the *root* node, which is always the attribute tree name, from the hierarchy list. Selecting any node from the hierarchy list enables the toolbar.

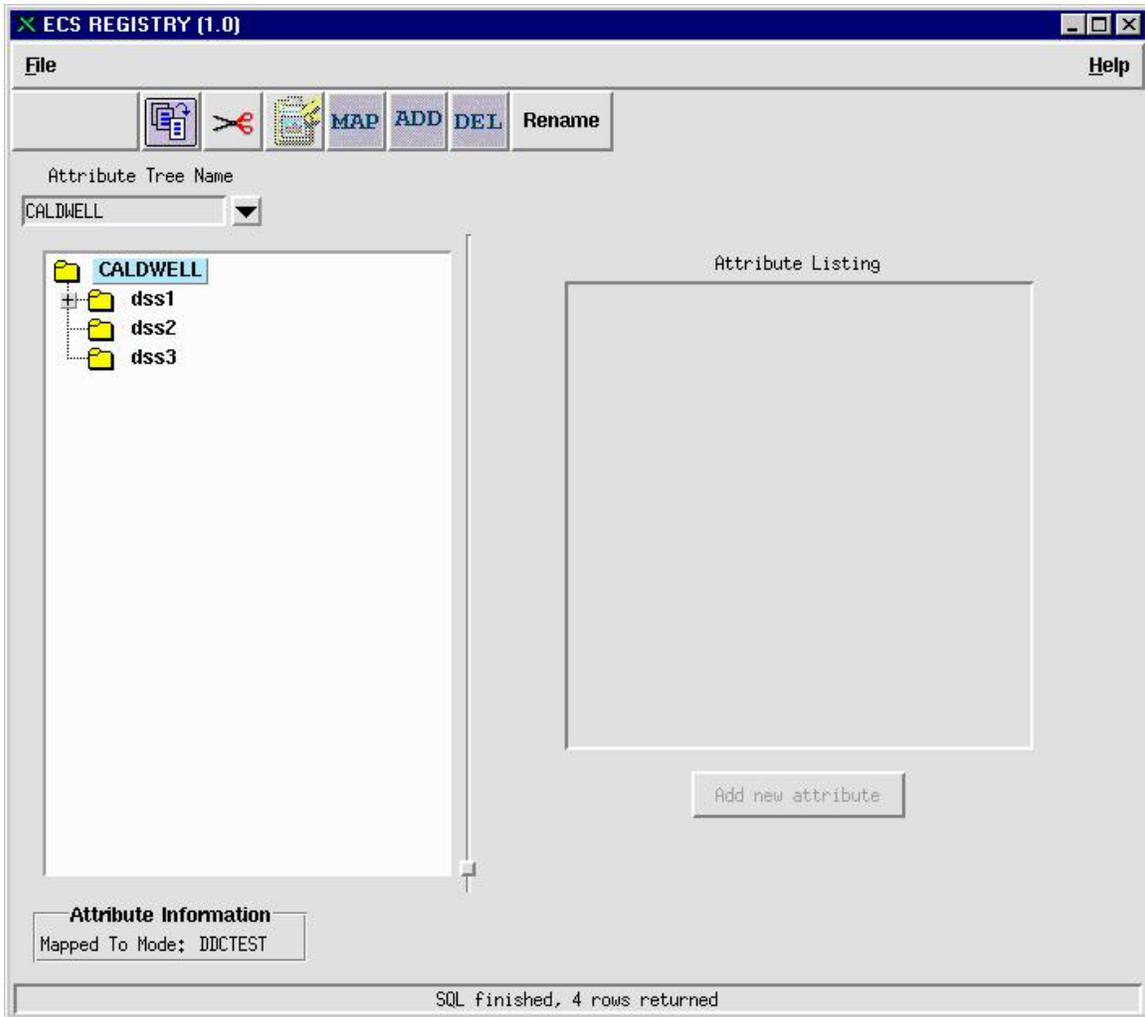


Figure 4.1.6-3. Adding a New Node Window

Clicking the “ADD” button from the toolbar displays the “Adding a new node dialog” as represented in Figure 4.1.6-4.

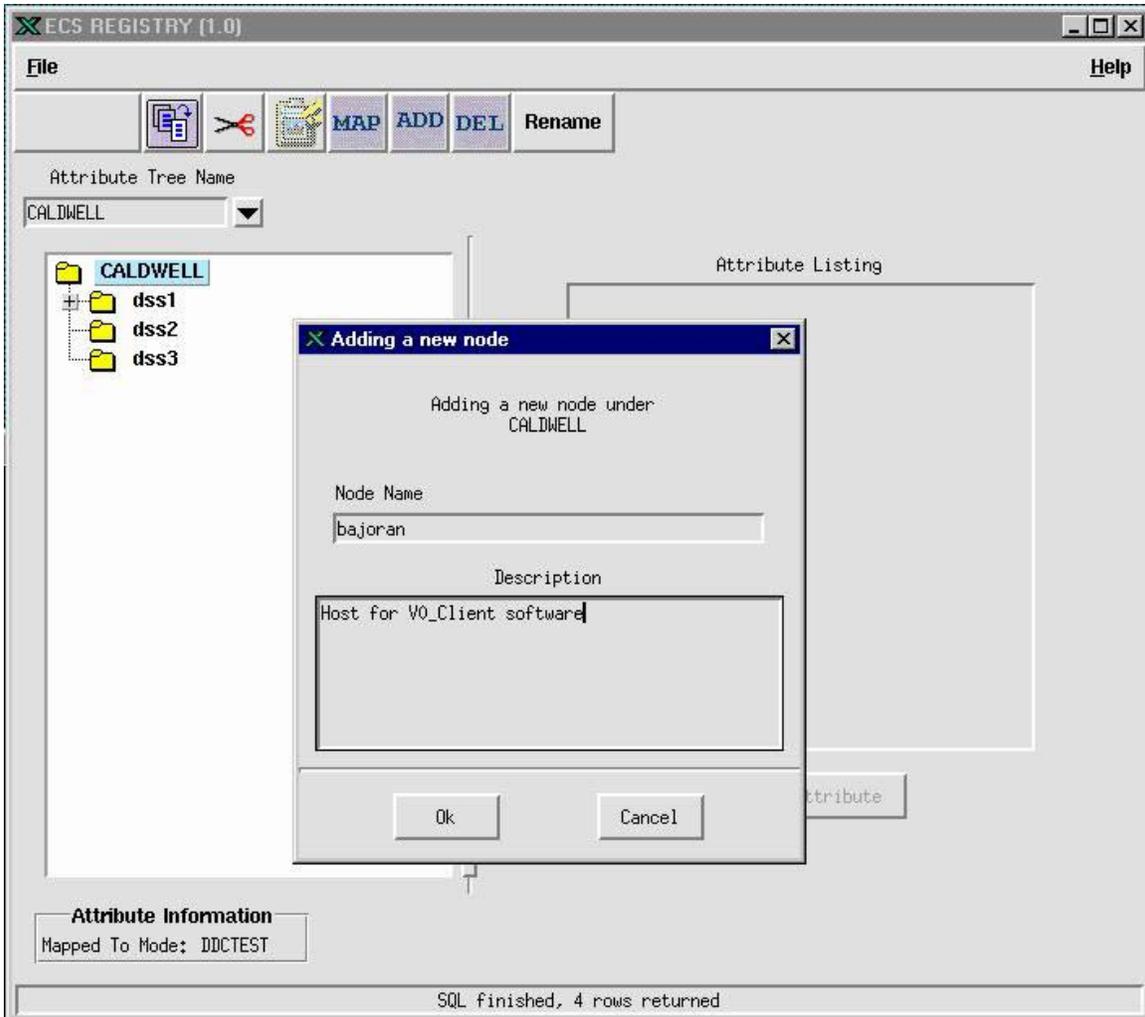


Figure 4.1.6-4. Adding a New Node Dialog Window

Table 4.1.6-4 describes the various fields in the Adding a New Node window.

Table 4.1.6-4. Adding a New Node Field Descriptions

Field Name	Data Type	Size	Description
"Adding a new node"	Display only	-	Window title
Node Name	Text	-	Node Name
Node Description	Text	-	Node Description
"Ok"	Button	-	Accepts the ADD
"Cancel"	Button	-	Cancel the ADD

Figure 4.1.6-5 shows the final results of adding a new node.

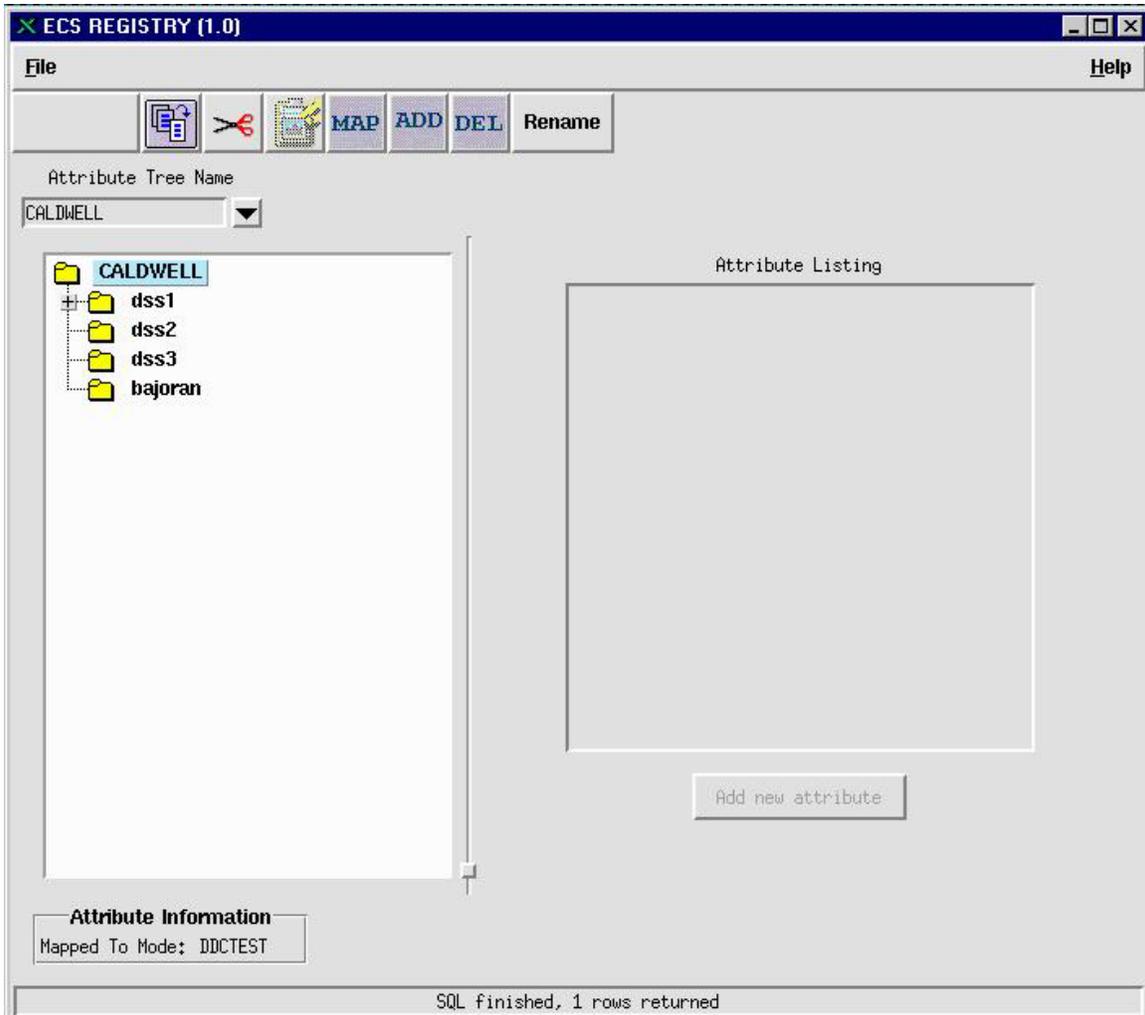


Figure 4.1.6-5. Results of Adding a New Node

4.1.6.2.2 Mapping a Mode to an Attribute Tree

Figure 4.1.6-6 represents step 1 when mapping a mode to an attribute tree.

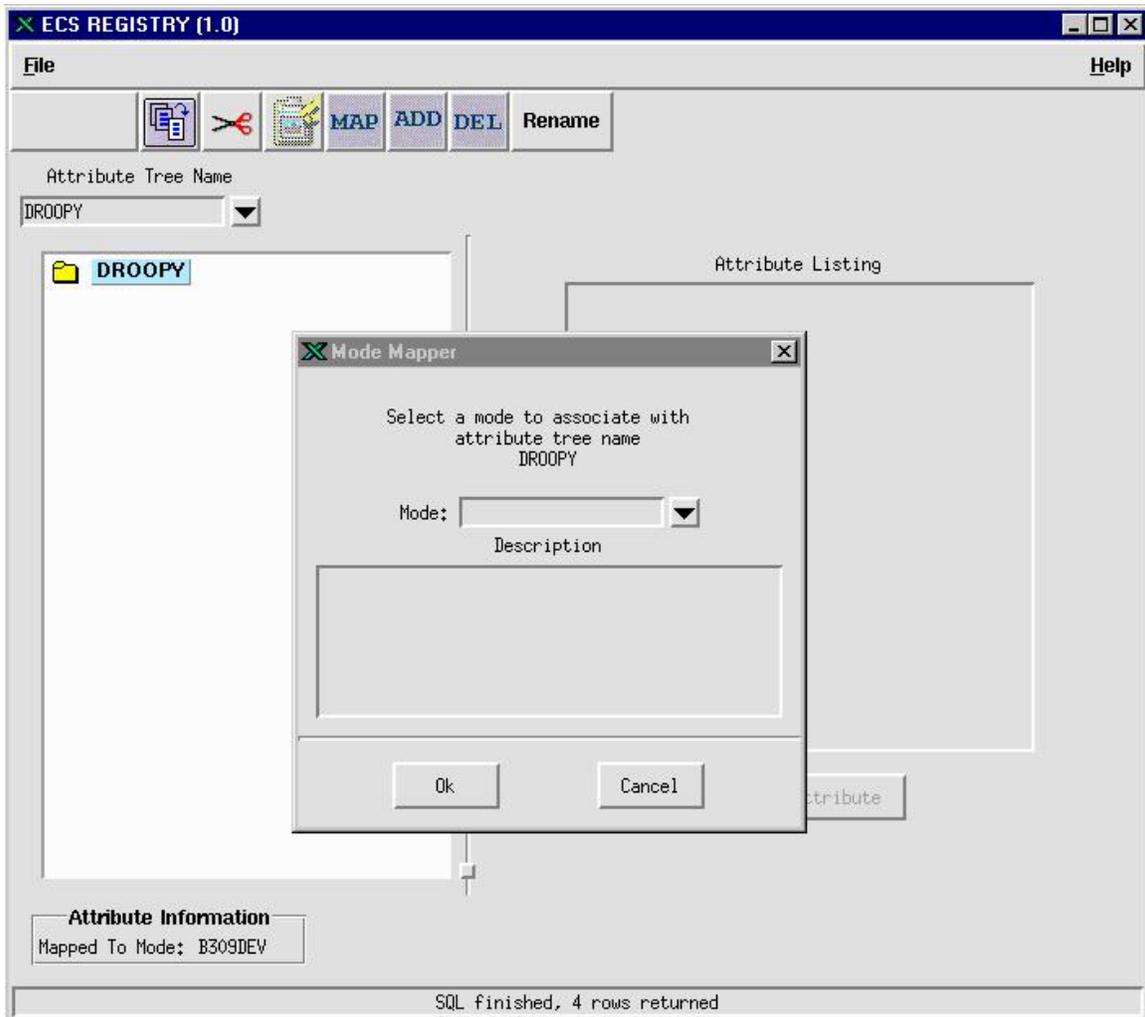


Figure 4.1.6-6. Mode Mapper Window

Table 4.1.6-5 describes the fields in the Mode Mapper window.

Table 4.1.6-5. Map a Mode to an Attribute Tree

Field Name	Data Type	Size	Description
"Mode Mapper"	Display Only	-	Window title.
Mode	Text	-	Mode selection using a combo box.
Mode Description	Text	-	Mode Description.
"Ok"	Button	-	Accepts the mode selection.
"Cancel"	Button	-	Cancels the mode mapping operation.

To associate a mode with the selected attribute tree, click the “MAP” button from the toolbar; the “Mode Mapper” dialog is displayed as represented in Figure 4.1.6-7. It indicates that mode “OPS” has been selected and a description has been entered.

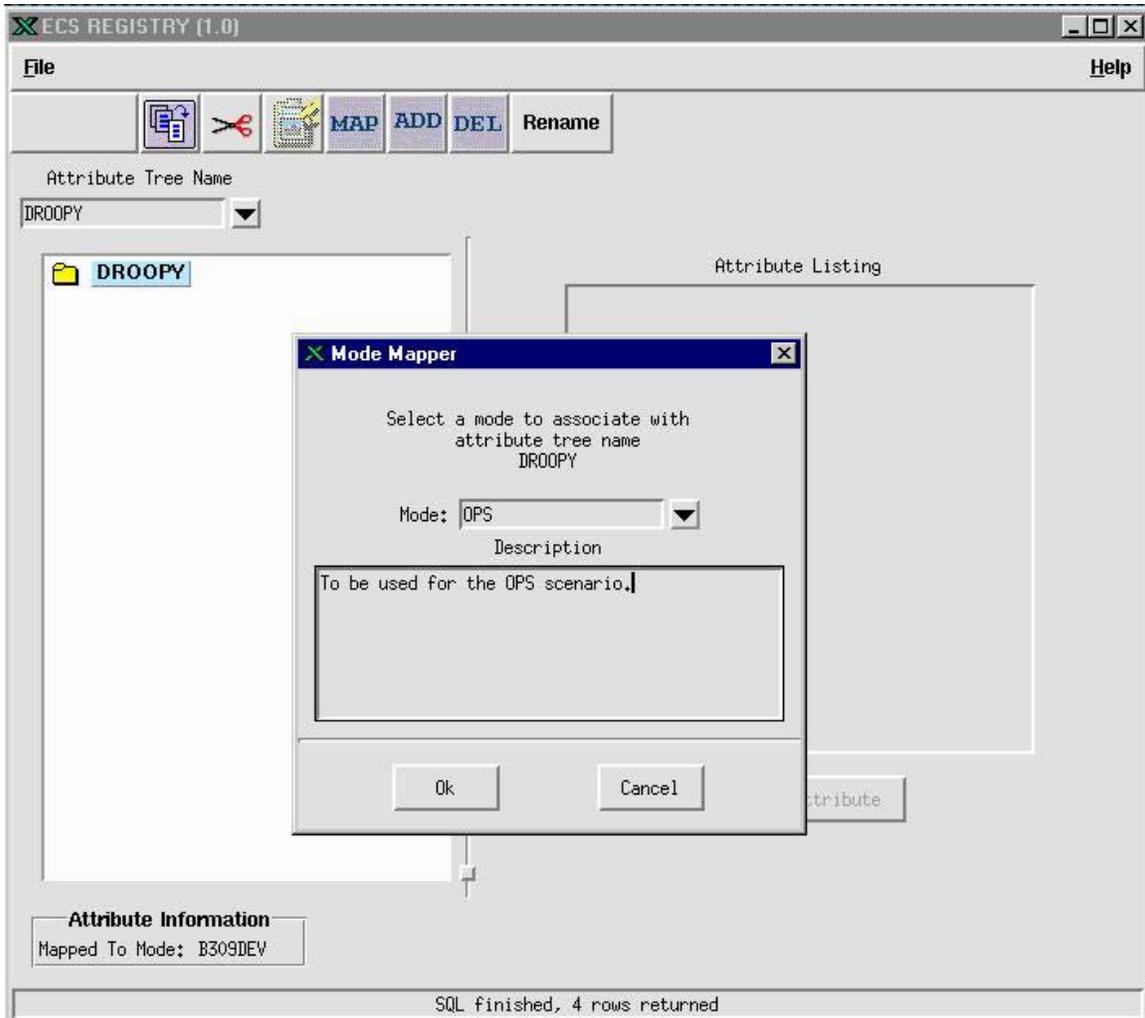


Figure 4.1.6-7. Results of Mode Mapping

Figure 4.1.6-8 represents the final result of associating a mode with an attribute tree. In the attribute information box, the mode “OPS” is mapped to attribute tree “DROOPY.”

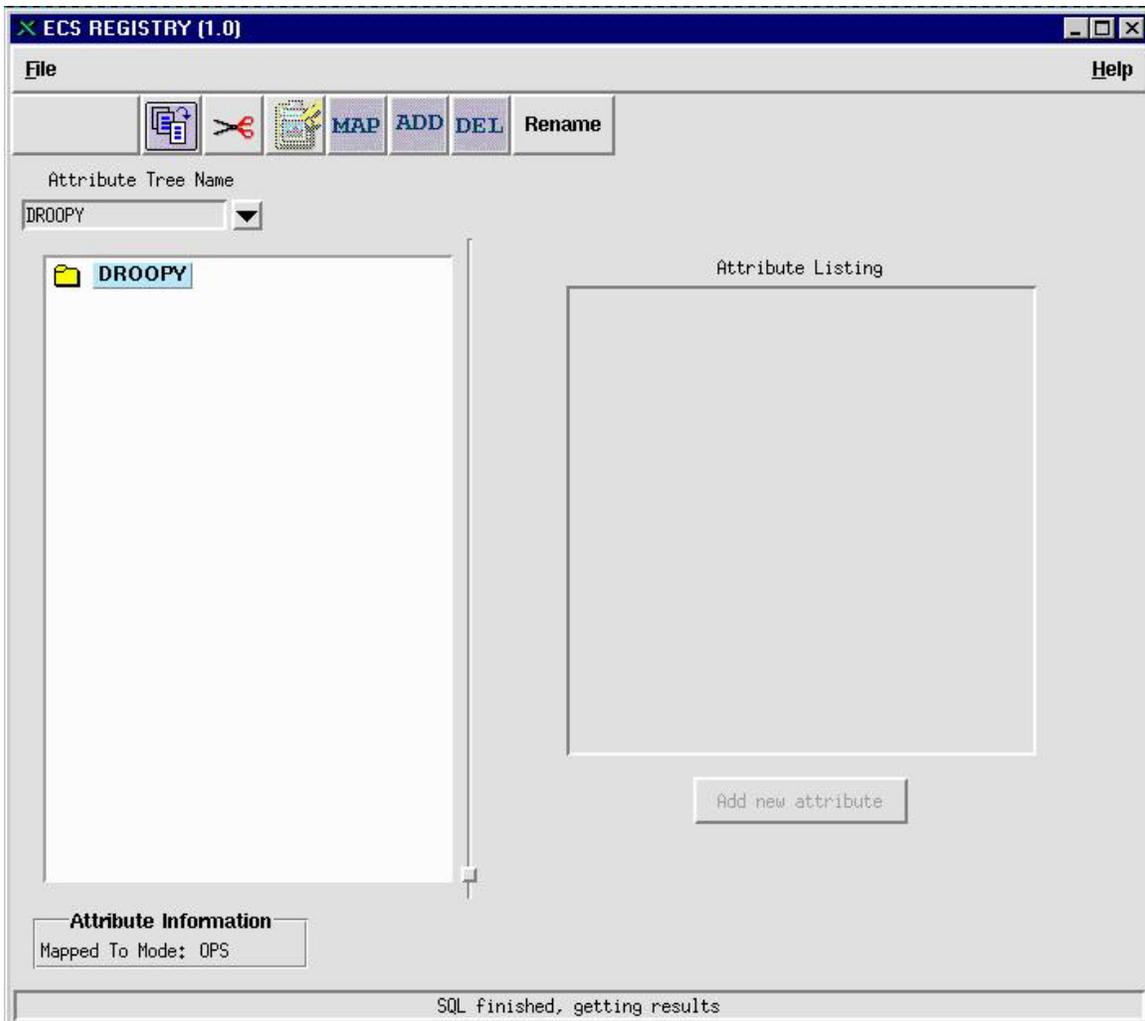


Figure 4.1.6-8. Final Result of Mode Mapping Transaction

4.1.6.2.3 Creating a New Attribute Tree by Copy

Figure 4.1.6-9 shows that an attribute tree has been selected and the user has highlighted the copy icon from the toolbar.

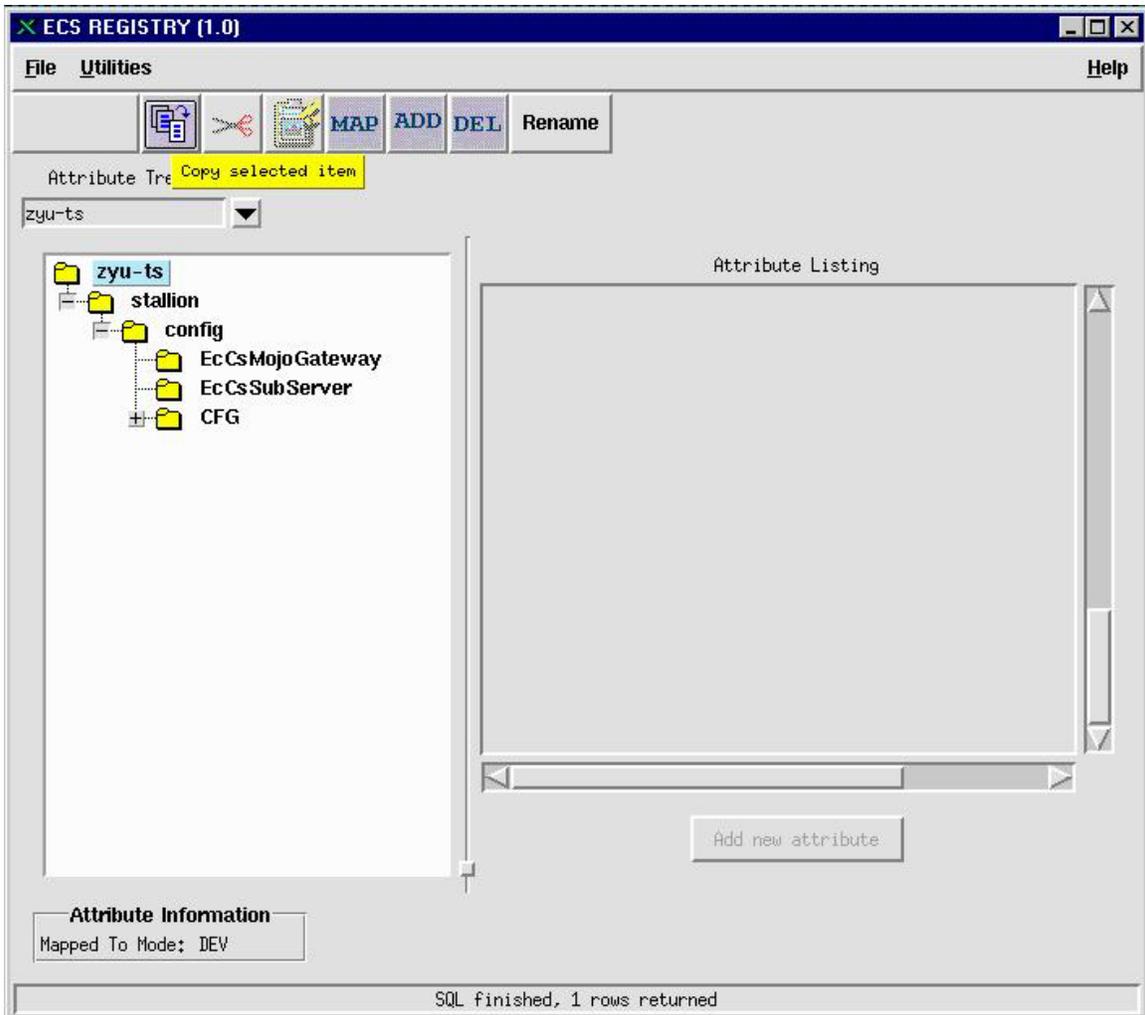


Figure 4.1.6-9. Creating a New Attribute Tree Using the Copy Button

Click the Copy button to facilitate the creation of a new attribute tree as represented by Figure 4.1.6-10.

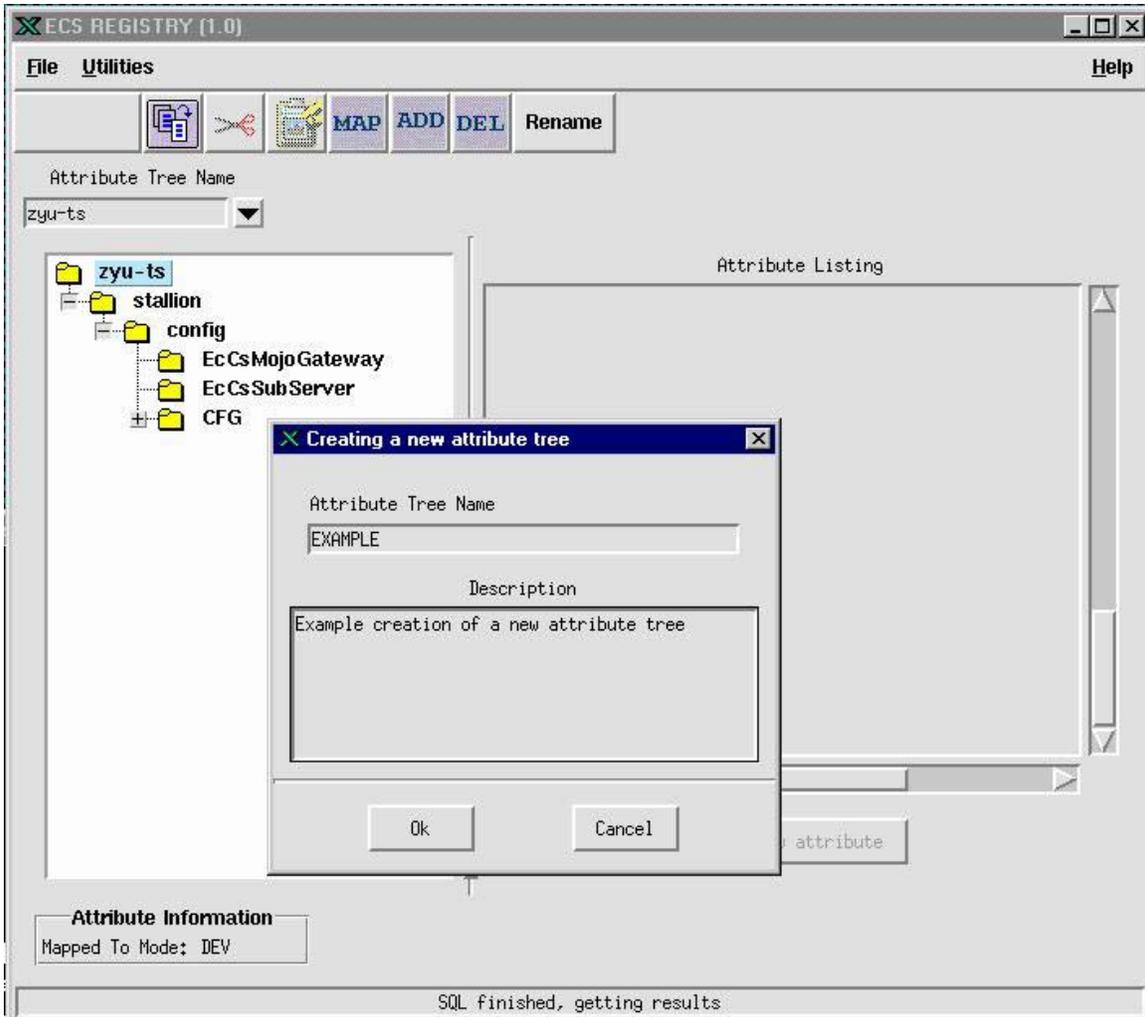


Figure 4.1.6-10. Creating a New Attribute Tree Window

Table 4.1.6-6 identifies the fields in the “Creating a new attribute tree” window.

Table 4.1.6-6. Creating a New Attribute Tree by Copy

Field Name	Data Type	Size	Description
“Creating a new attribute tree”	Display Only	-	Window title
Attribute Tree Name	Text	-	Attribute Tree Name
Description	Text	-	Attribute Tree Description
“Ok”	Button	-	Accepts the Copy operation
“Cancel”	Button	-	Cancel the Copy operation

Once the new attribute tree has been created, you can verify its existence. Open the combo box as depicted in Figure 4.1.6-11 and select the new attribute tree. In this case, the new attribute is "EXAMPLE" as shown in Figure 4.1.6-12.

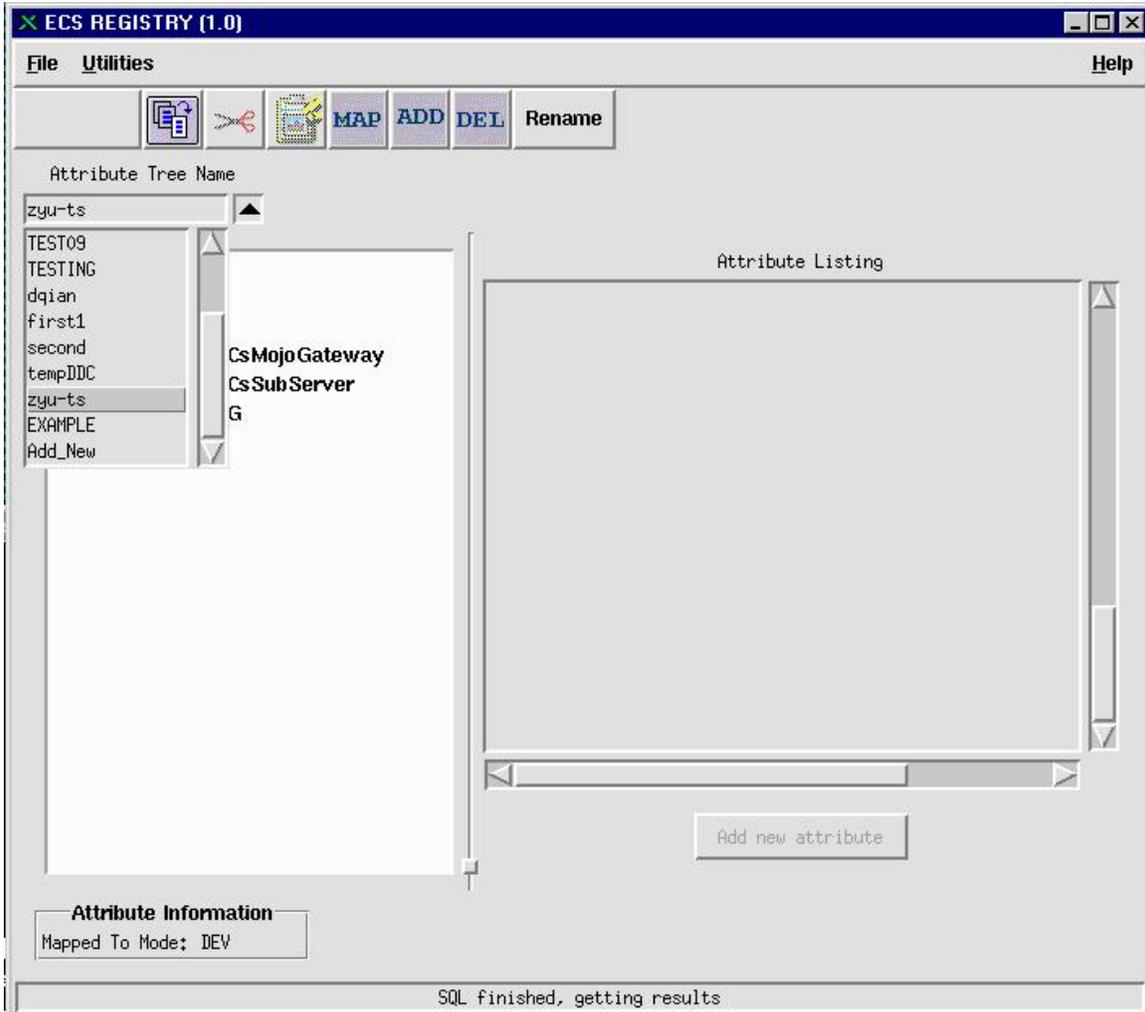


Figure 4.1.6-11. Attribute Tree Field Combo Box List

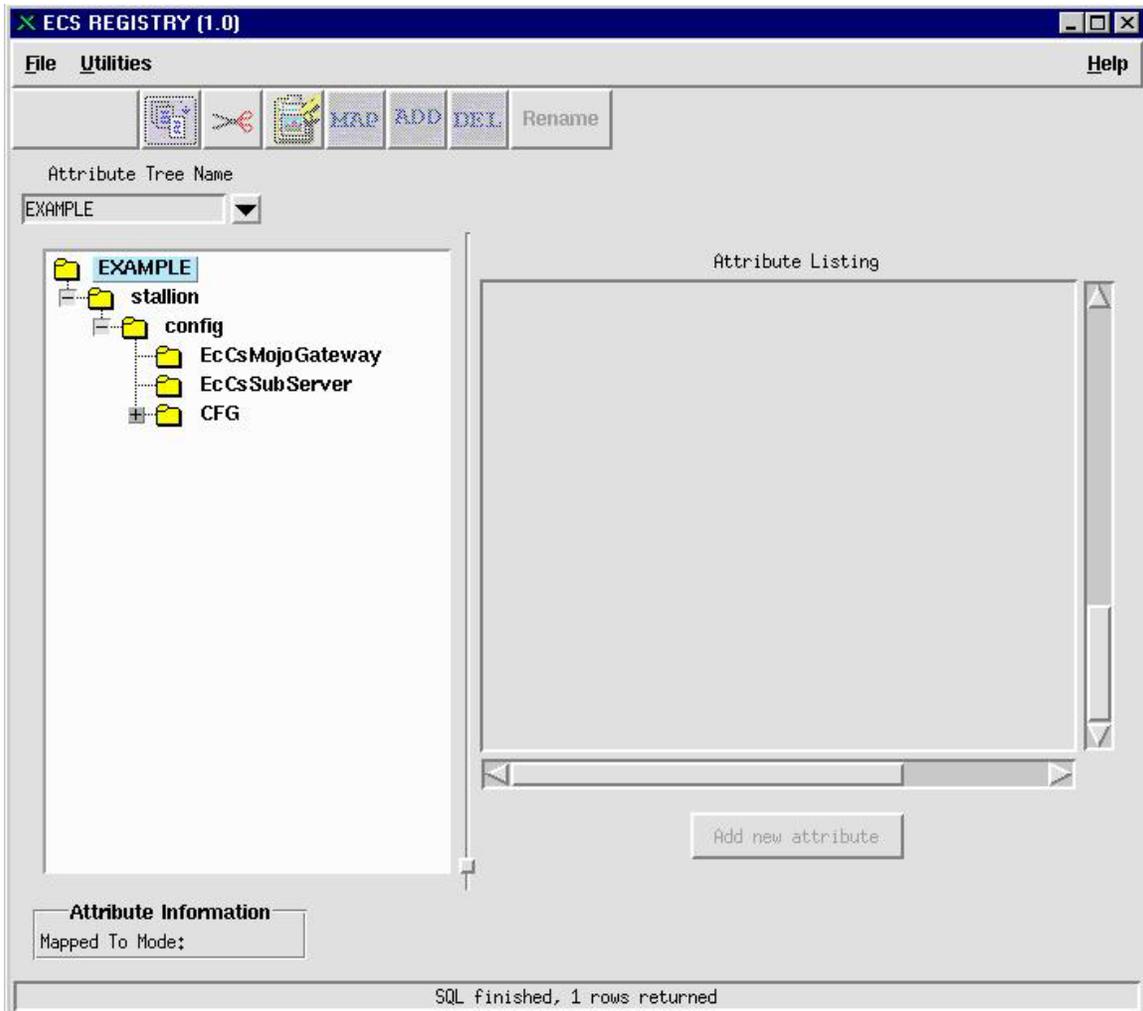


Figure 4.1.6-12. Display of the New Attribute Tree

4.1.6.2.4 Move Subtree Option

To move nodes within the attribute tree, select the root of the sub-tree that is to be moved. In this case, we have selected the node “*EcCsEmailParser*” within the attribute tree labeled *tempDDC* as depicted in Figure 4.1.6-13. Note that there are Attributes associated with the node *EcCsEmailParser*, which are discussed ahead.

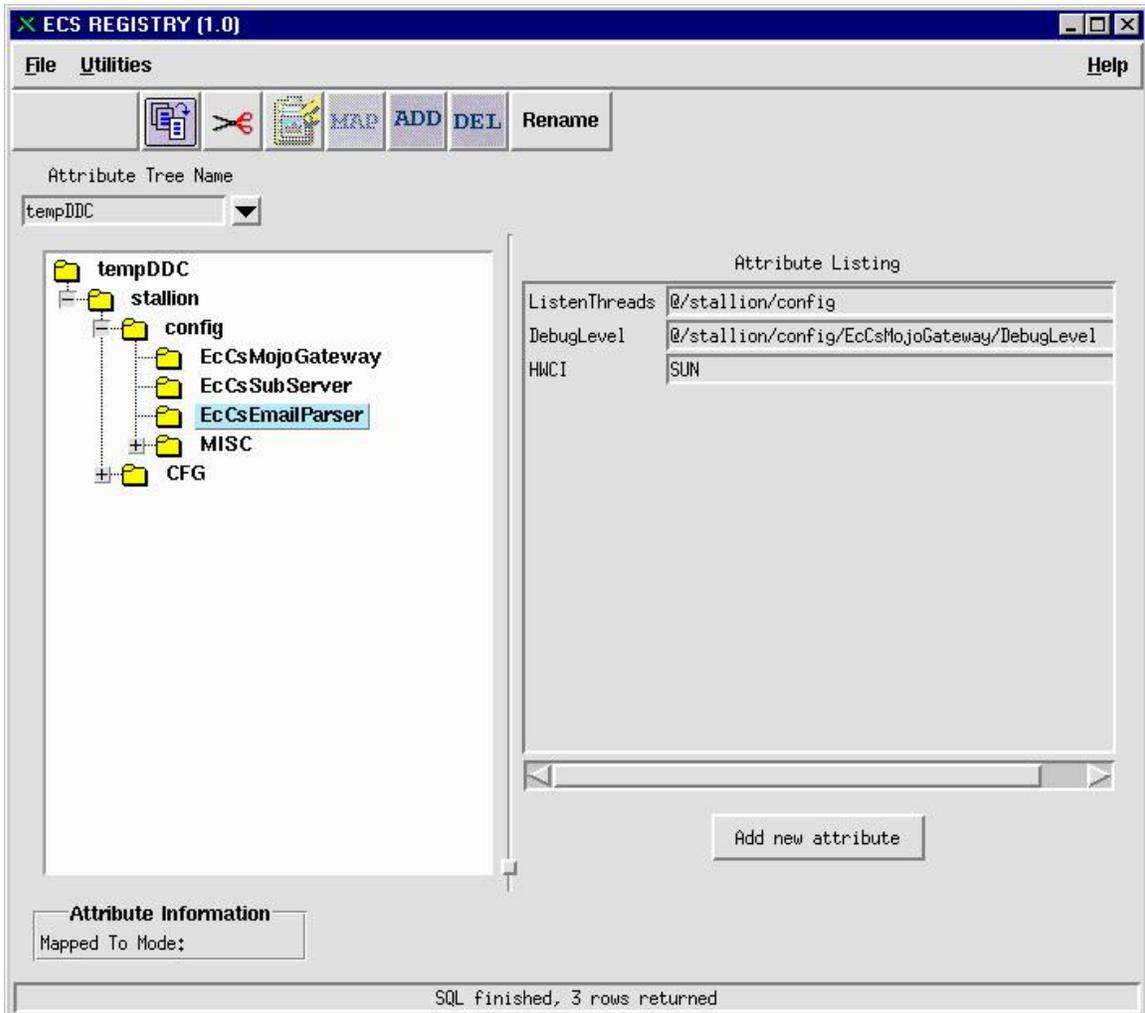


Figure 4.1.6-13. Move Nodes Option

In Figure 4.1.6-14, the cut icon is highlighted.

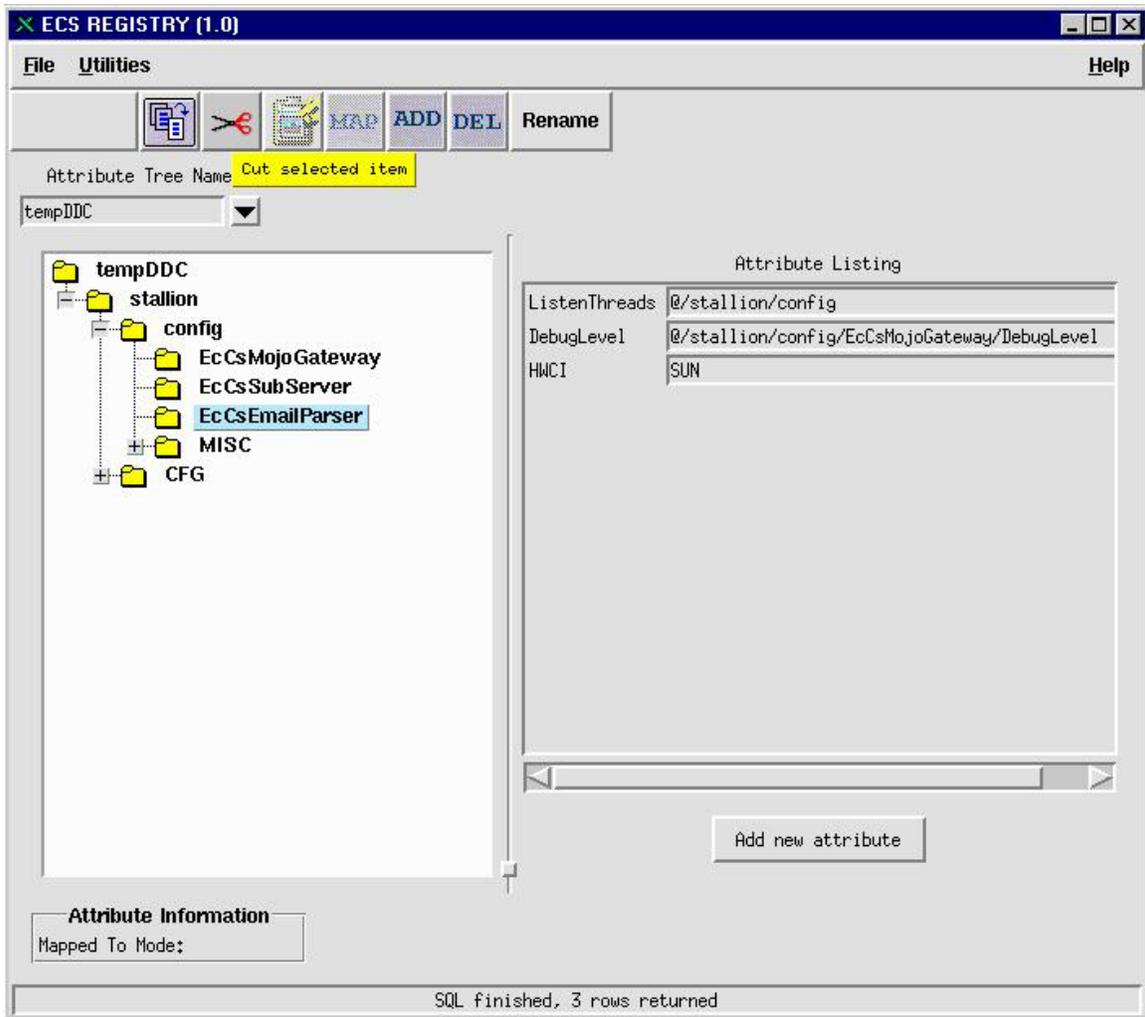


Figure 4.1.6-14. Cut Button is Pressed

Clicking the cut icon prepares the move operation as depicted in the Figure 4.1.6-15.

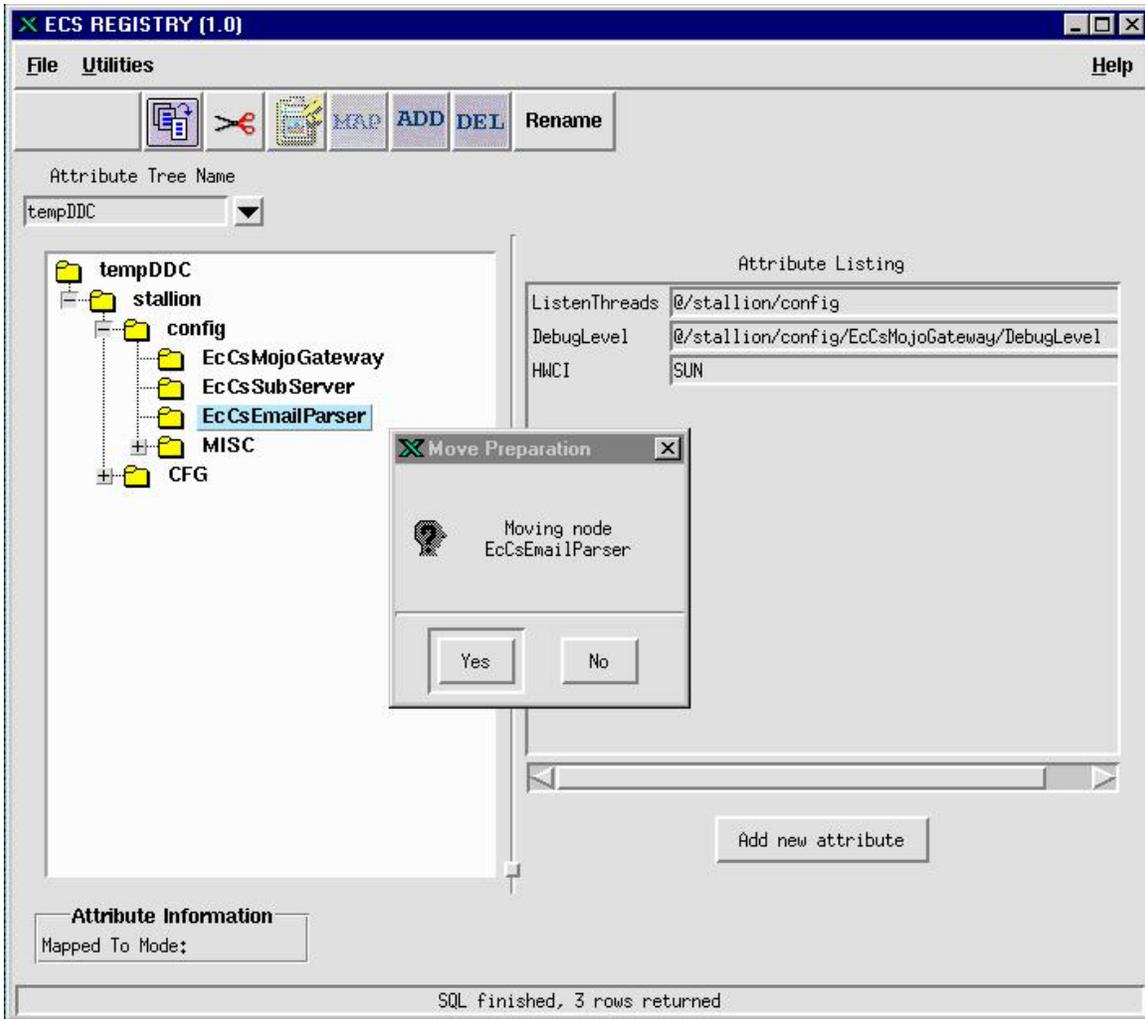


Figure 4.1.6-15. Result of Pressing the Cut Icon in the Move Subtree Operation

Table 4.1.6-7 describes the fields in the Move Preparation window.

Table 4.1.6-7. Move Preparation Field Definitions

Field Name	Data Type	Size	Description
"Move Preparation"	Display Only	-	Window title
"Yes"	Button	-	Accepts the transaction
"No"	Button	-	Cancels the transaction

Figure 4.1.6-16 represents final confirmation before the move.

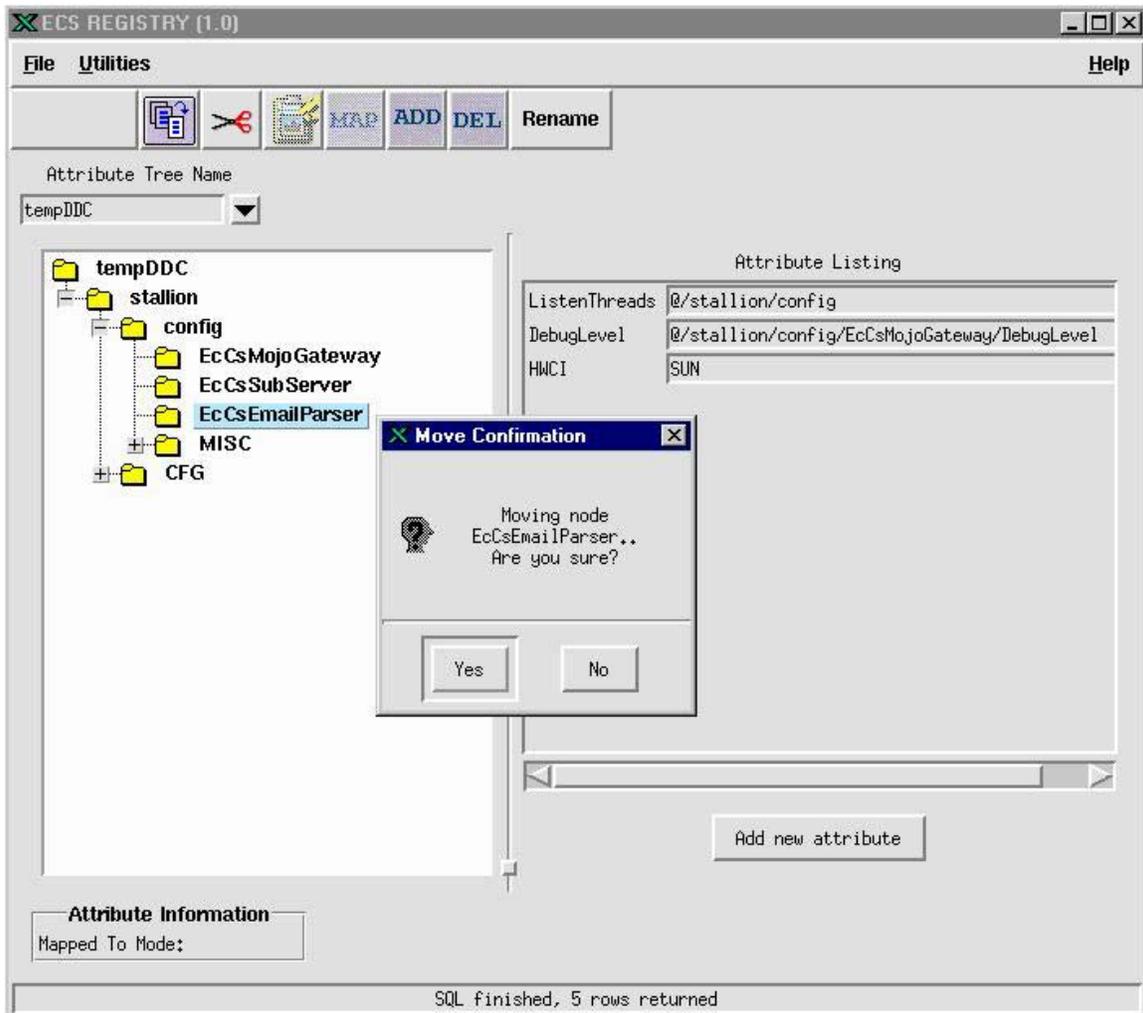


Figure 4.1.6-16. Final Confirmation for the Move Operation

Table 4.1.6-8 describes the field in the Move Confirmation window.

Table 4.1.6-8. Move Confirmation Window Fields

Field Name	Data Type	Size	Description
“Move Confirmation”	Display Only	-	Window title.
“Yes”	Button	-	Accepts the transaction.
“No”	Button	-	Cancels the transaction.

Select the target node for the move as depicted in Figure 4.1.6-17. In this case, the target node is “CFG.”

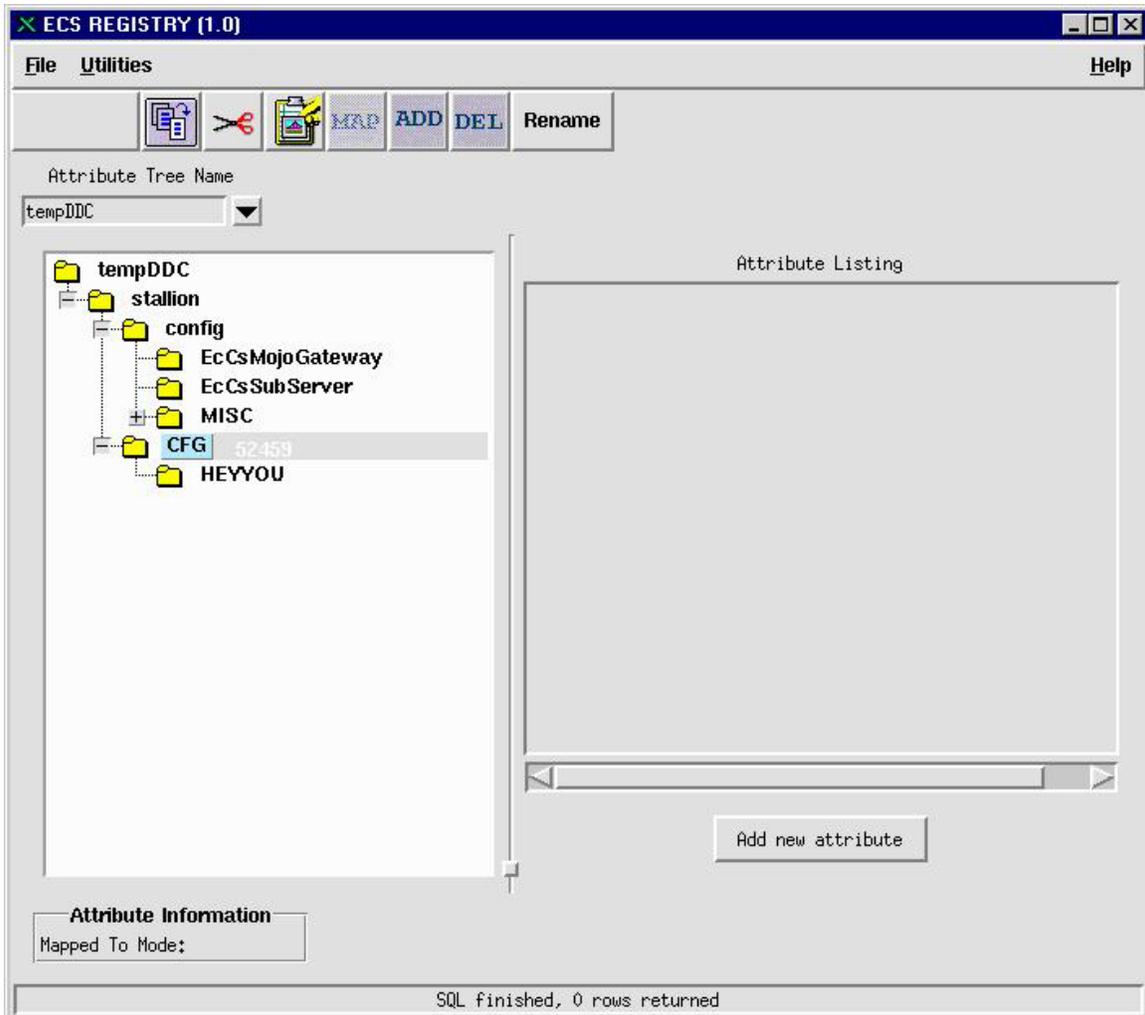


Figure 4.1.6-17. Selecting the Target of the Move

Click the paste icon to finalize the move to the target node as depicted in Figure 4.1.6-18.

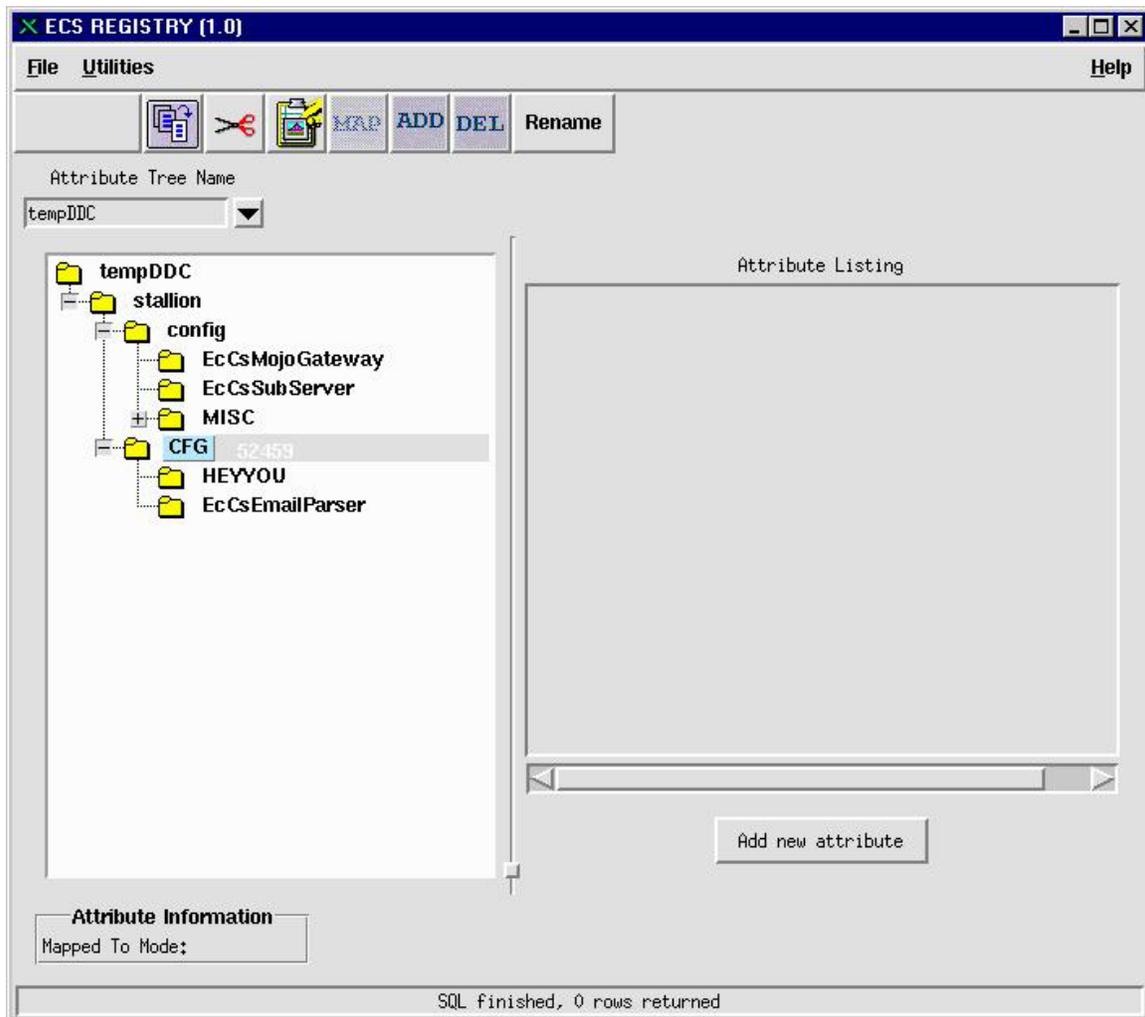


Figure 4.1.6-18. Result of the Paste in the Move Operation

To move a node to a node within another attribute tree:

1. Select an attribute tree of choice.
2. Select a node within the selected attribute tree.
3. Click the “Paste” button.

4.1.6.2.5 Rename Nodes

Select the attribute tree to be renamed. In this case, the *root* node “EXAMPLE” is selected as depicted in Figure 4.1.6-19.

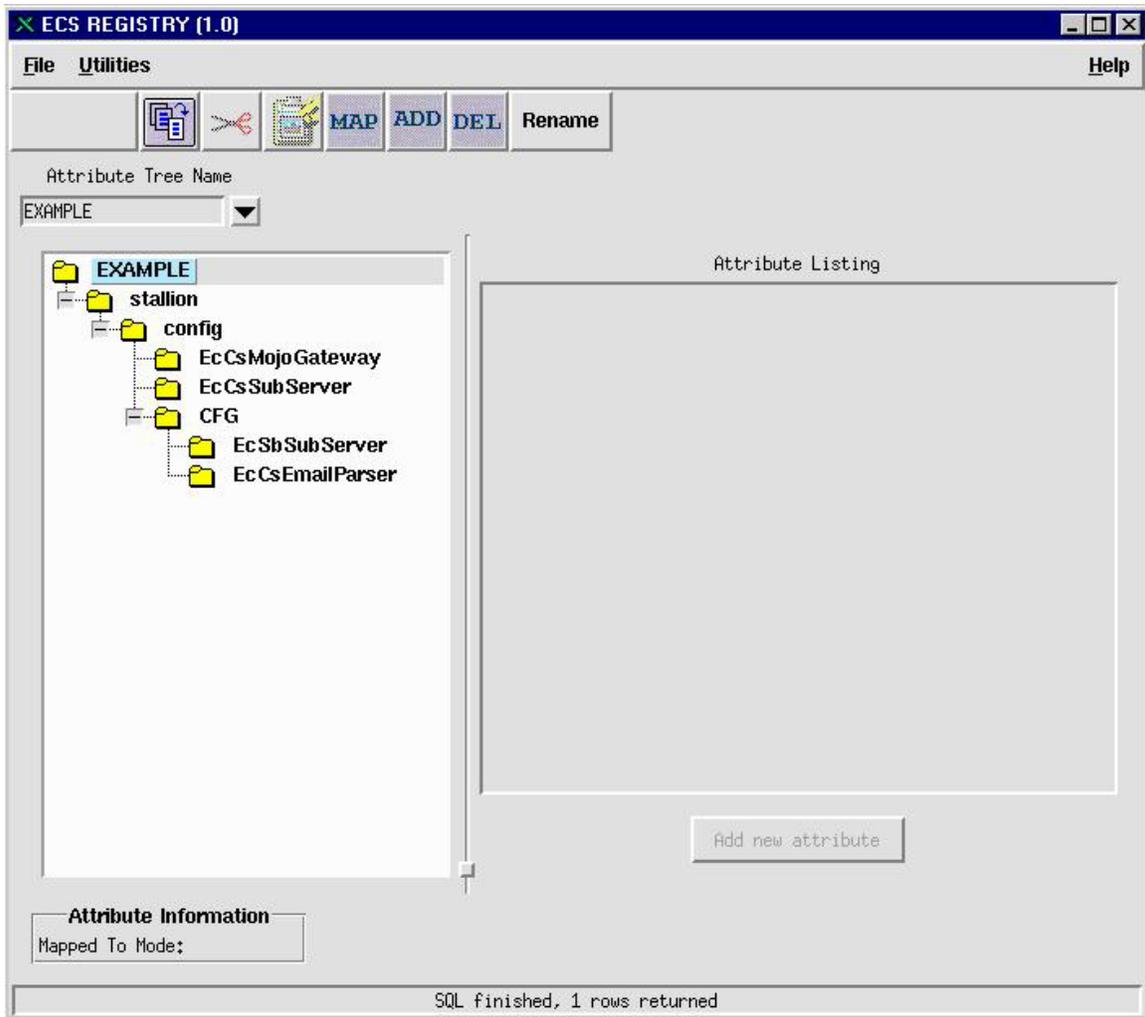


Figure 4.1.6-19. Rename Operation

Click the “Rename” icon from the toolbar and the Rename dialog box is displayed as represented in Figure 4.1.6-20. Enter the new name and click “OK.”

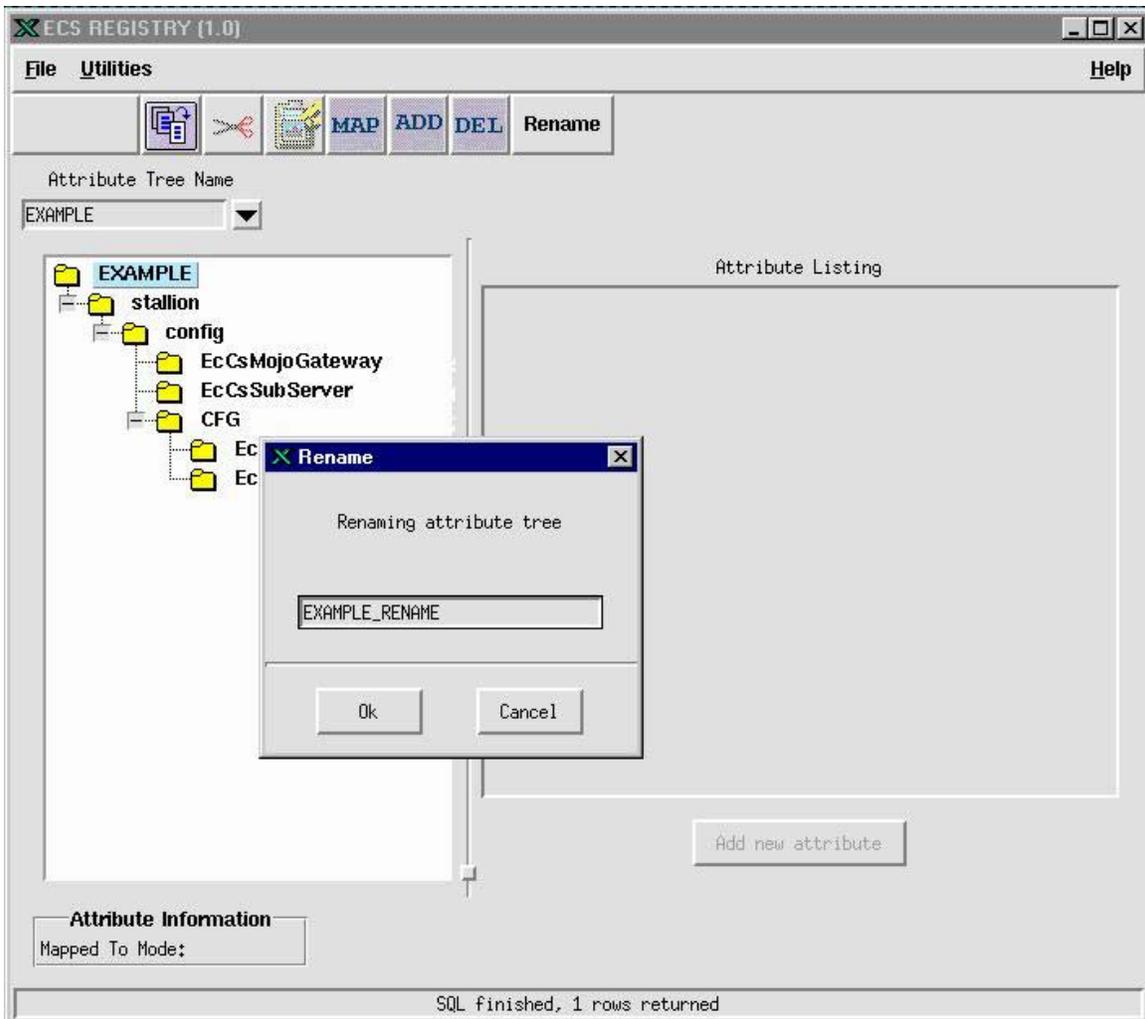


Figure 4.1.6-20. Rename Dialog Box

Table 4.1.6-19 describes the fields in the Rename Dialog box.

Table 4.1.6-9. Rename Attribute Tree

Field Name	Data Type	Size	Description
"Rename"	Display Only	-	Window title.
New Name	Text	-	New Name.
"OK"	Button	-	Accepts the transaction.
"Cancel"	Button	-	Cancel the transaction.

Figure 4.1.6-21 represents the final results of renaming an attribute tree.

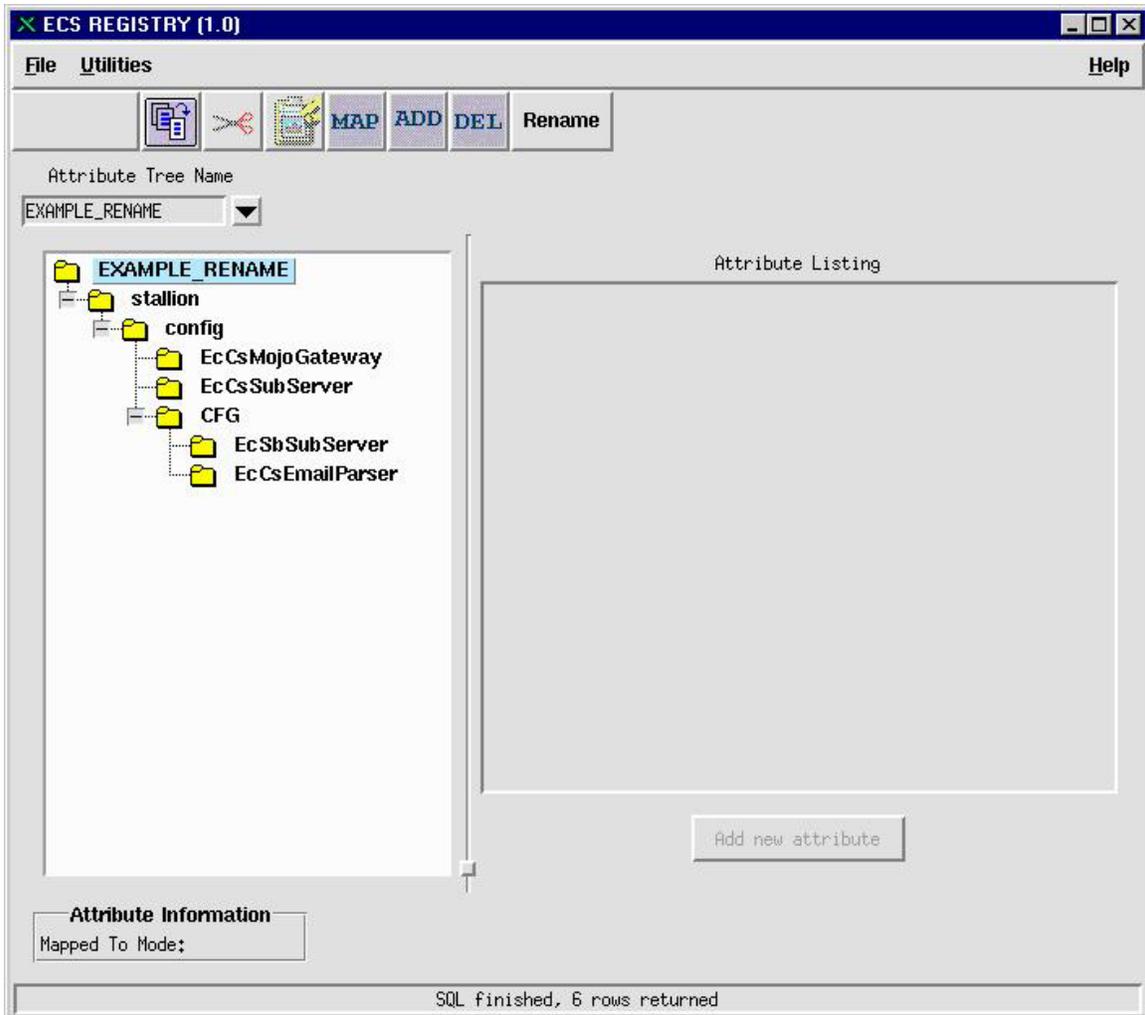


Figure 4.1.6-21. Result of the Rename Attribute Tree Operation

Select a node and click the “Rename” icon from the toolbar. Enter the new name and click “Ok” as depicted in Figure 4.1.6-22.

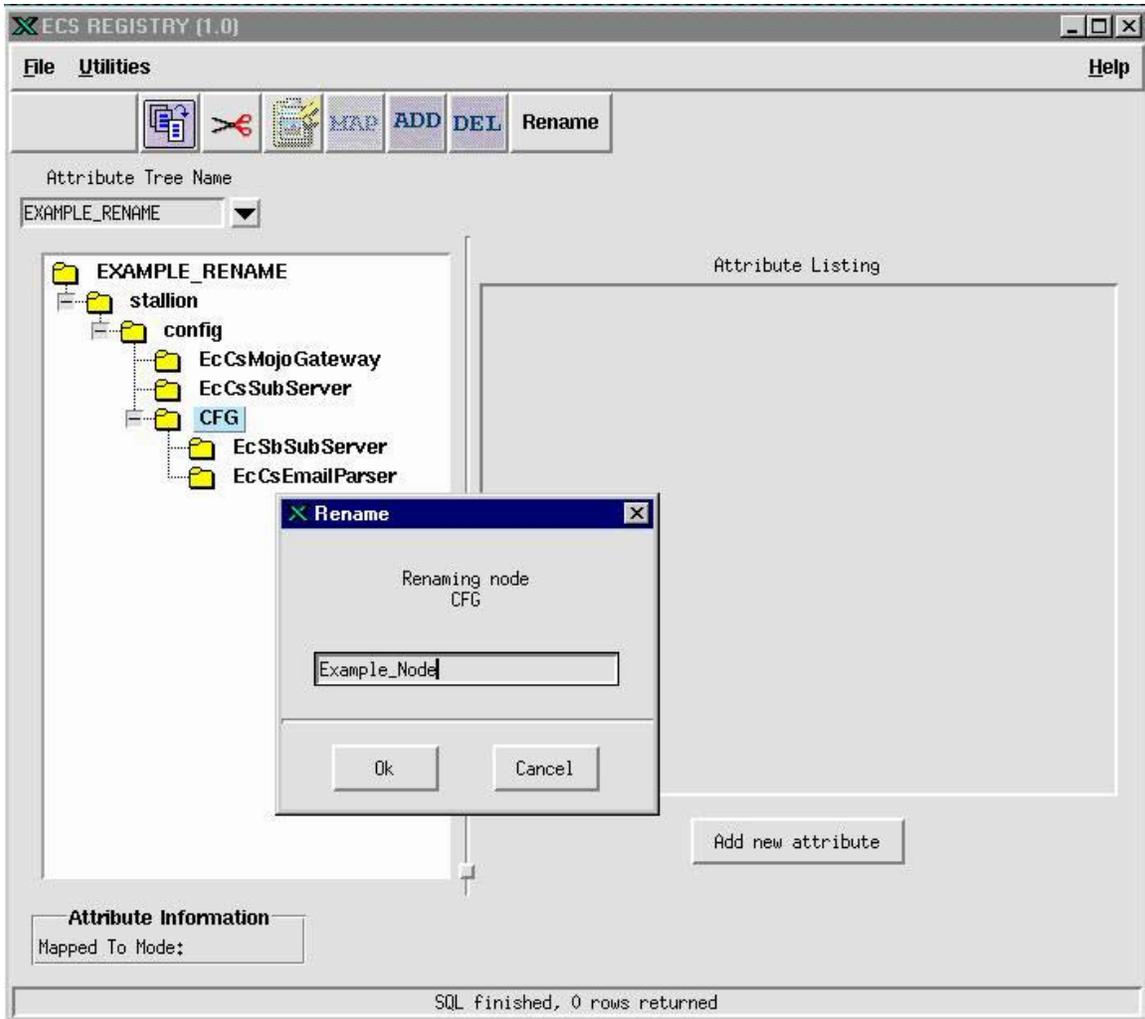


Figure 4.1.6-22. Rename Dialog Box for Changing the “CFG” Node

Figure 4.1.6-23 represents the final results of renaming a node.

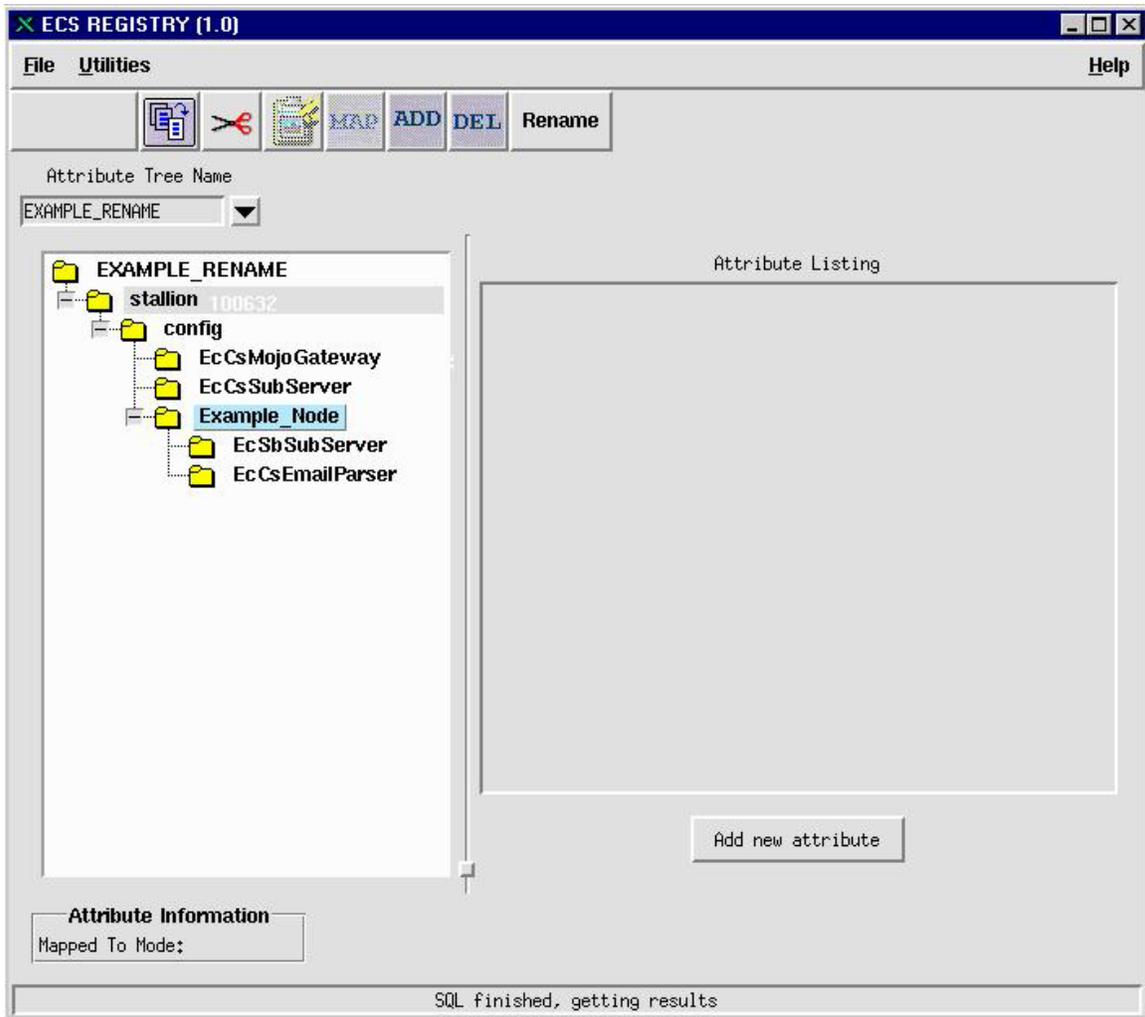


Figure 4.1.6-23. Results of Renaming the “CFG” Node to “Example_Node”

4.1.6.2.6 Deleting Nodes

Figure 4.1.6-24 represents the initiation of a node deletion. Select a node and click the “DEL” button to initiate deletion of a node. A Delete confirmation dialog box is displayed. Click “Ok” to delete the selected node.

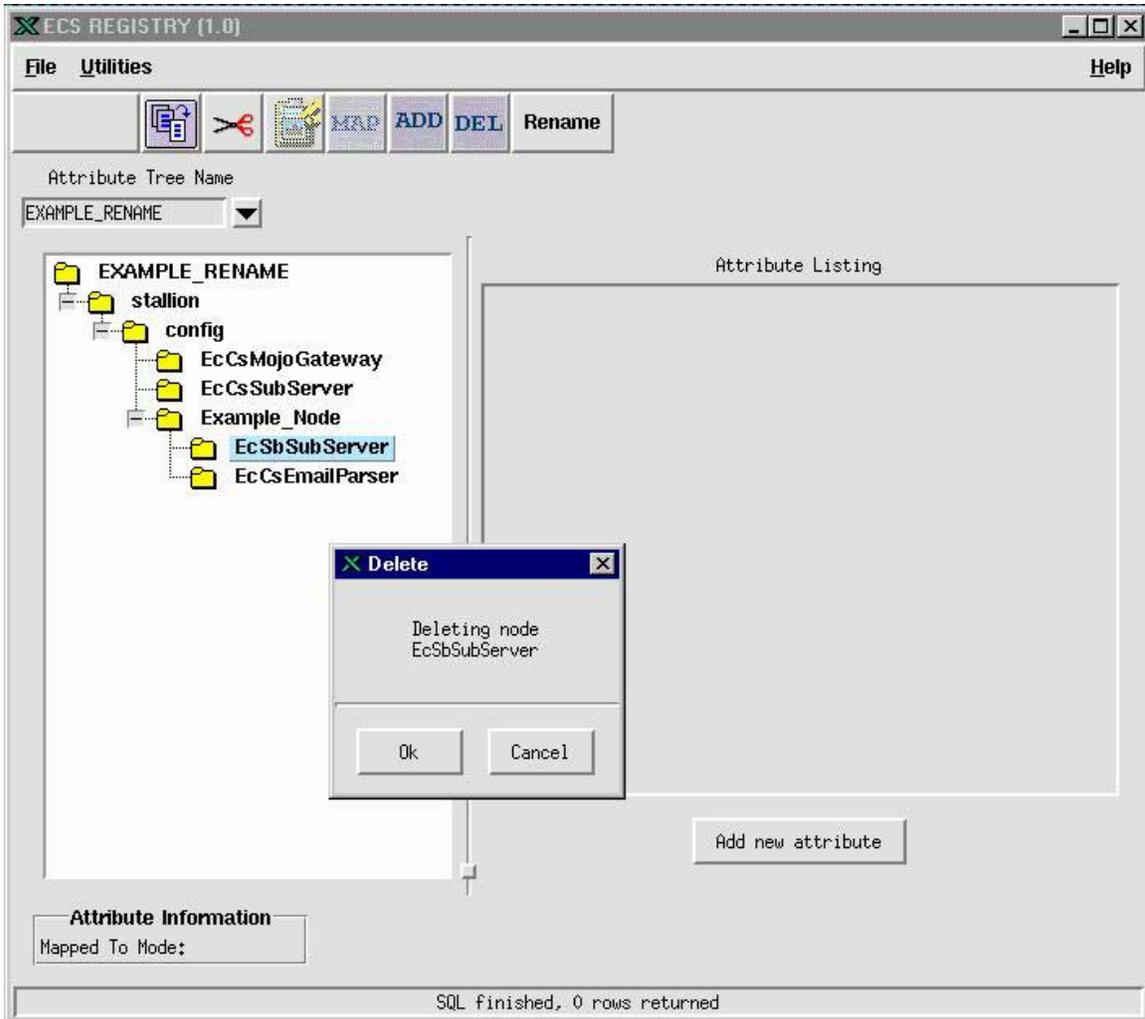


Figure 4.1.6-24. Delete Node Confirmation Dialog Box

Table 4.1.6-10 describes the fields in the Delete dialog box.

Table 4.1.6-10. Delete Node

Field Name	Data Type	Size	Description
"Delete"	Display Only	-	Window title
"Ok"	Button	-	Accepts the transaction
"Cancel"	Button	-	Cancels the transaction

Figure 4.1.6-25 represents the final results when deleting a node.

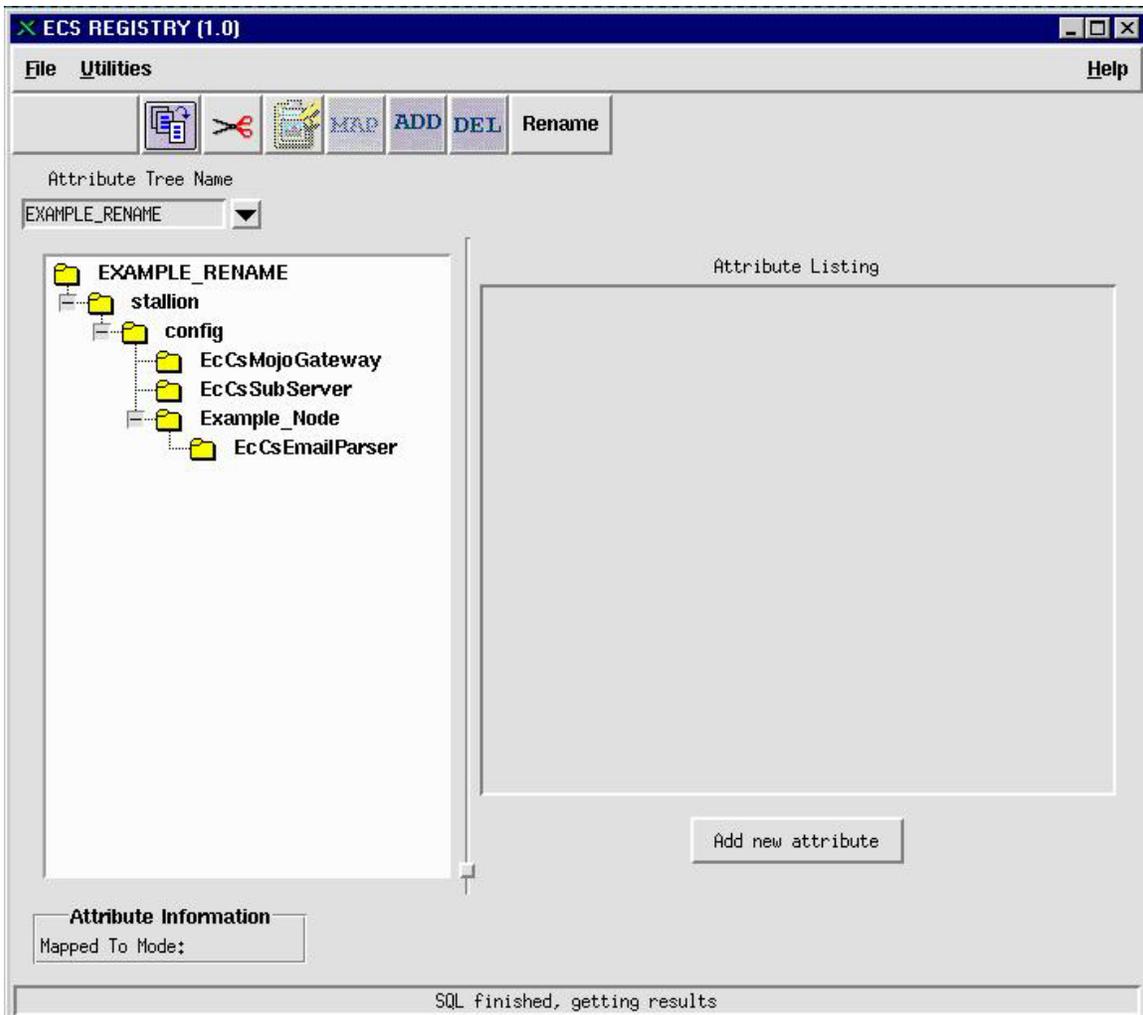


Figure 4.1.6-25. Result of a Confirmed Delete on the Attribute Tree

In Figure 4.1.6-26, node “EcCsEmailParser” has been selected. Node “EcCsEmailParser” has three associated “Attributes.” These attributes contain configurable information used by the ECS application software. An attribute is a node with a type “*Attribute*.”

To delete an attribute, select it from the “Attribute Listing.” In the example, attribute “HWCI” is selected.

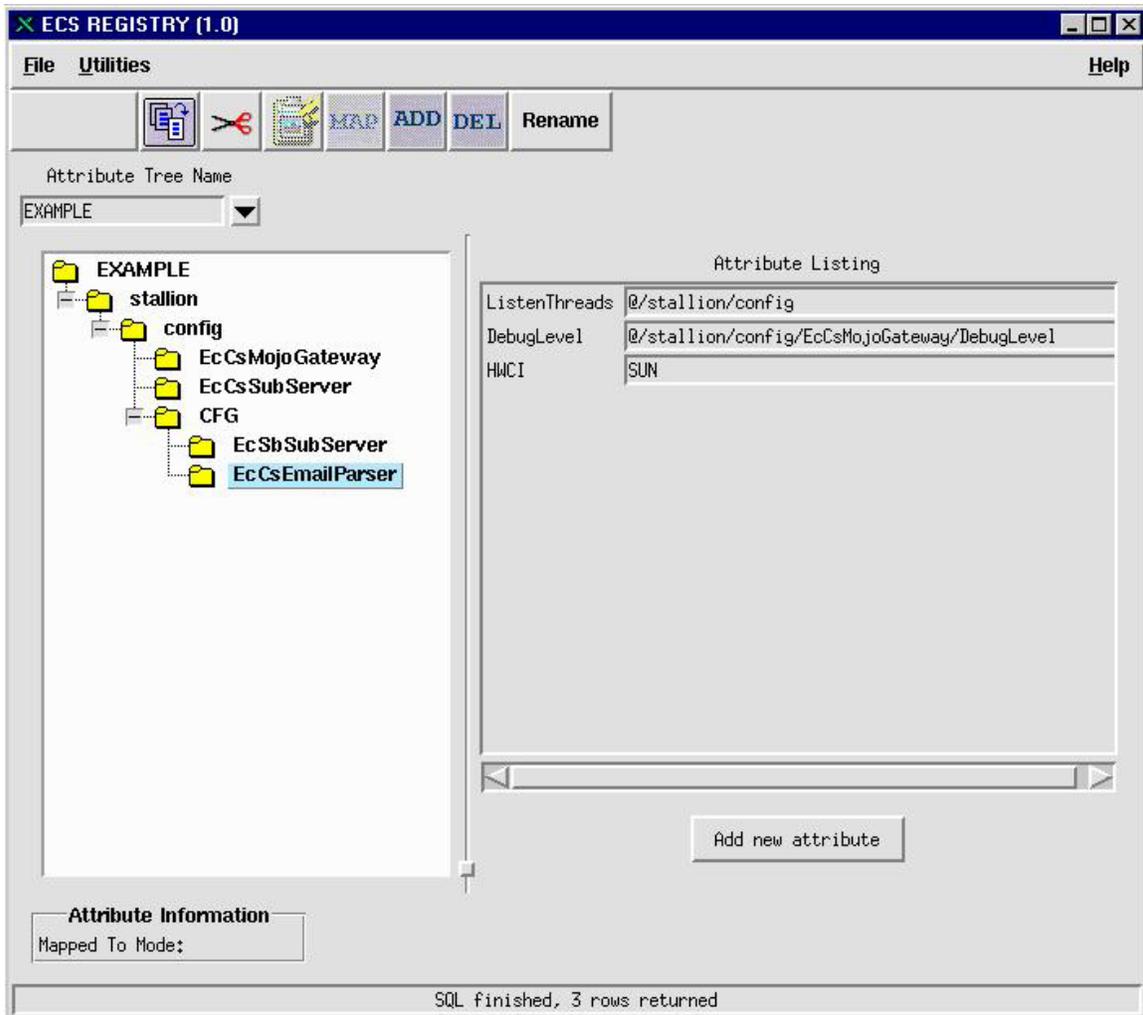


Figure 4.1.6-26. Deleting an Attribute Operation

Table 4.1.6-11 describes the fields for the Delete attribute operation.

Table 4.1.6-11. Fields in the Delete Attribute Dialog

Field Name	Data Type	Size	Description
"Attribute Listing"	Display Only	-	Window title.
Attribute Name(s) list	Display ENTRY	-	Attribute Name.
Add new attribute	Button	-	Launches the attribute information dialog.
"Ok"	Button	-	Accepts the transaction.
"Cancel"	Button	-	Cancel the transaction.

Figure 4.1.6-27 shows the Attribute Information window.

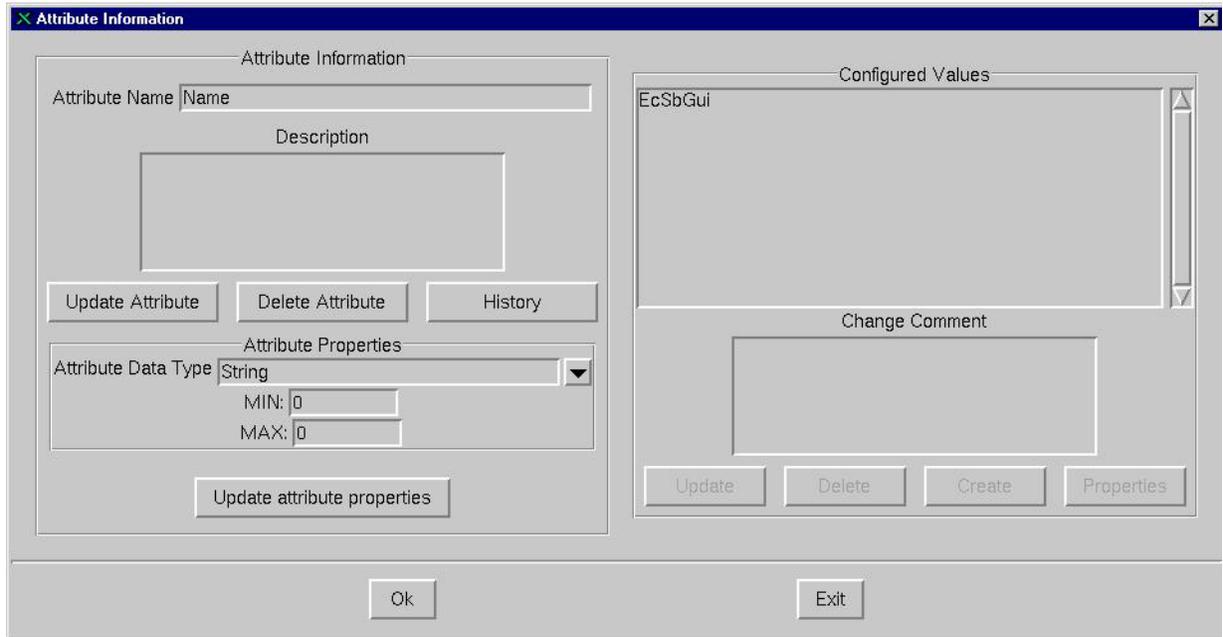


Figure 4.1.6-27. Attribute Information Window

Table 4.1.6-12 describes the fields in the Attribute Information window.

Table 4.1.6-12. Attribute Information Window Fields (1 of 2)

Field Name	Data Type	Size	Description
"Attribute Information"	Display Only	-	Window title.
Attribute Information	Grouping of attribute parameters	-	Heading for the characteristics of a specific attribute.
Attribute Name	Text	-	Attribute Name.
Description	Text	-	Attribute Description.
Update Attribute	Button	-	Updates the registry database with new attribute information.
Delete Attribute	Button	-	Deletes an attribute from the registry database.
History	Button	-	When this button is enabled, a list of historical data related to a selected attribute is displayed. Refer to Figure(s) 4.1.6-33 and 4.1.6-34.
Attribute Properties	Display Only	-	Heading.
Attribute Data Type	String, integer, etc	-	Displays a list of data types using a Combo Box.

Table 4.1.6-12. Attribute Information Window Fields (2 of 2)

Field Name	Data Type	Size	Description
MIN	Integer/float min value	-	Used for Integer and Float data types. Sets up a minimum value.
MAX	Integer/float max value	-	Used for Integer and Float data types. Sets up a maximum value.
Update attribute properties	Button	-	Updates the registry database with new attribute property information.
Configured Values	Grouping of attribute value info.	-	Collection of configured values associated with an attribute.
Value	-	-	Displays a list of values associated with the attribute.
Change Comment	Text	-	Upon adding new values or changing the state of a value, this field should contain the supporting information.
Update	Button		Updates a selected value with a new value.
Delete	Button		Deletes a selected value from list.
Create	Button		Inserts a new value into the list.
Properties	Button		Displays property information for a selected configuration value.
Ok	Button		Saves changes to the Registry Database; removes the attribute information dialog.
Exit	Button		Aborts any changes; removes the attribute information dialog.

When the “Delete Attribute” button is clicked, a Delete Confirmation dialog showing the attribute to be deleted is displayed as shown in Figure 4.1.6-28. The user hits the “Yes” button to confirm the deletion or the “No” button to cancel the deletion.

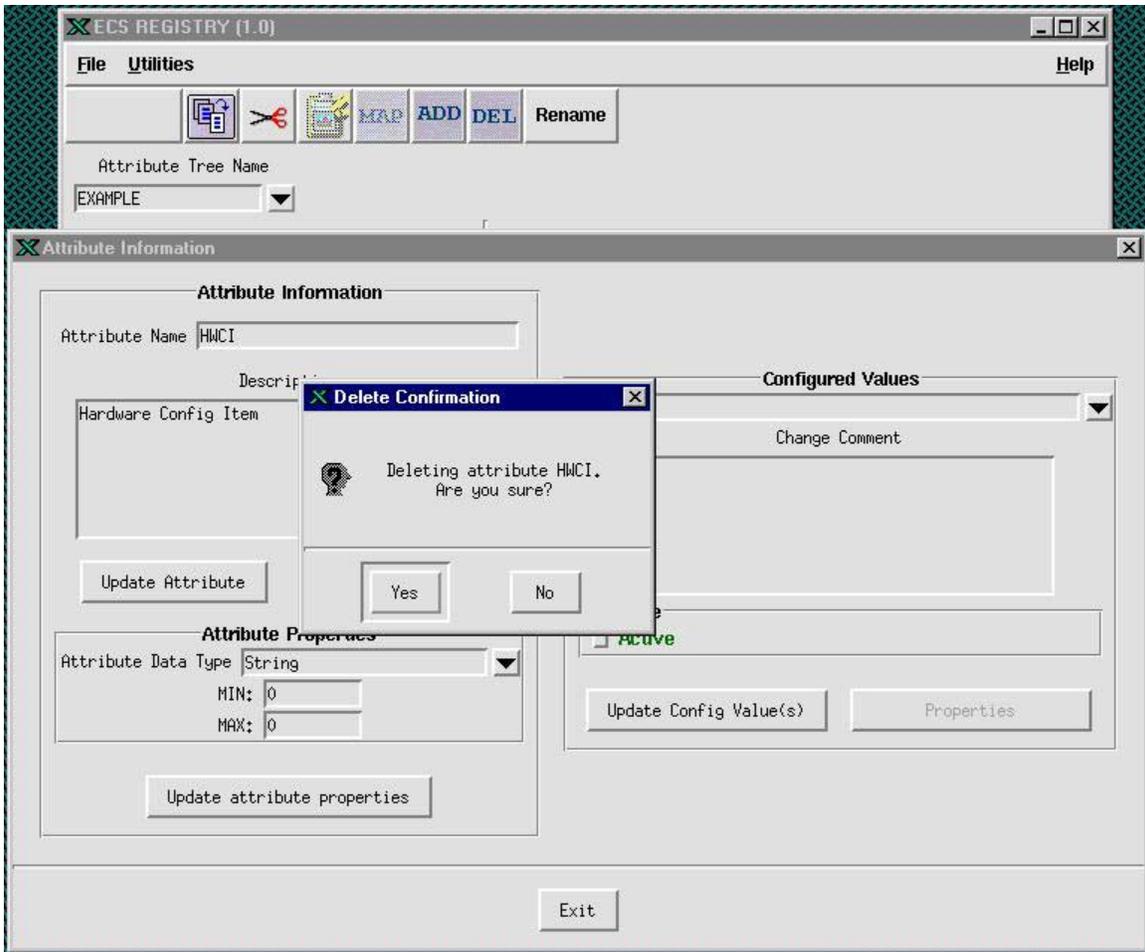


Figure 4.1.6-28. Delete Attribute Confirmation Dialog Box

Figure 4.1.6-29 represents the final results when deleting an attribute. Attribute “HWCI” has been deleted.

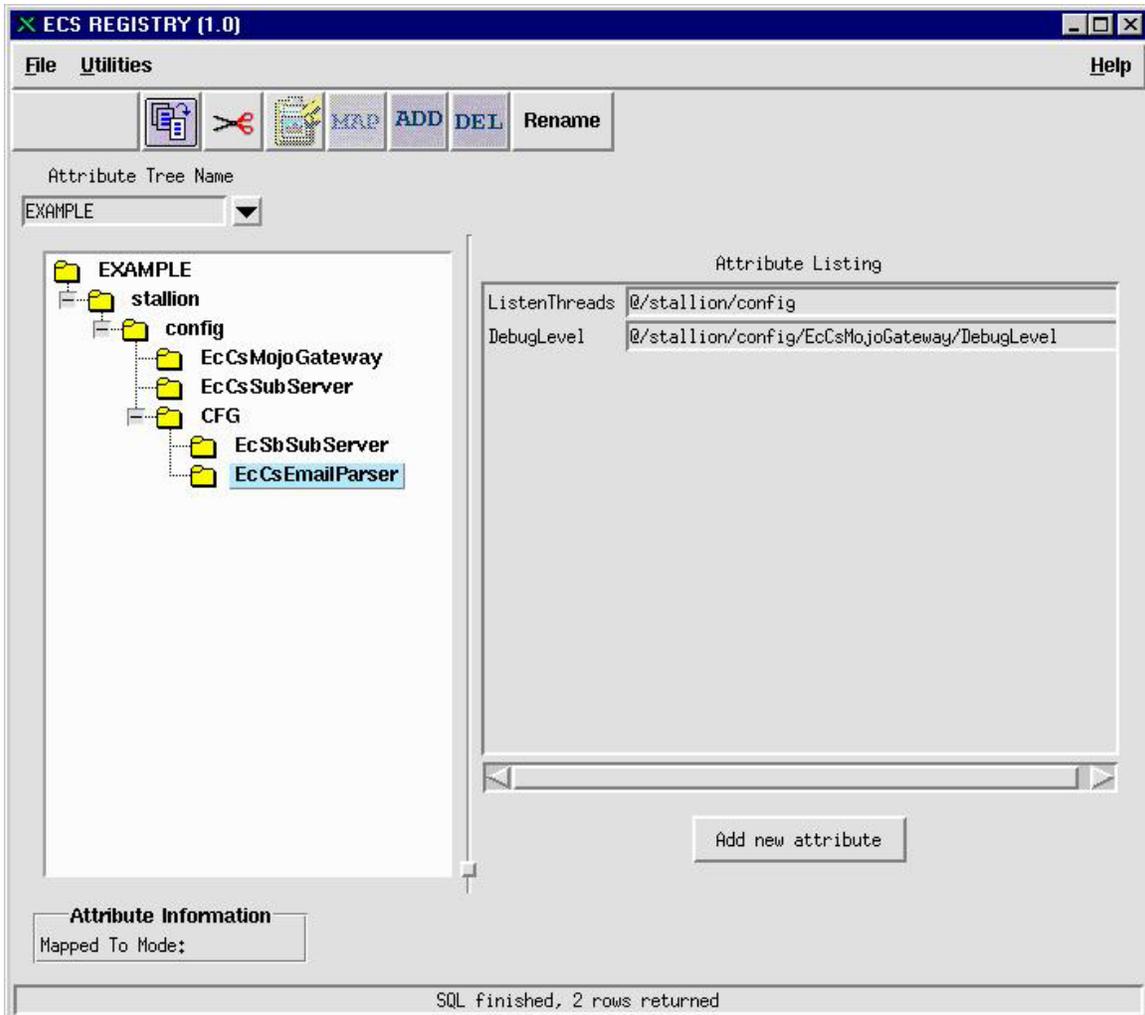


Figure 4.1.6-29. Final Result of the Delete “HWCI” Attribute Operation

4.1.6.2.7 Creating a New Attribute Tree

Open the “Attribute Tree Name” combo box and scroll down to the bottom as shown in Figure 4.1.6-30. There is an element called “Add_New.” Clicking on this element allows the creation of a new attribute tree.

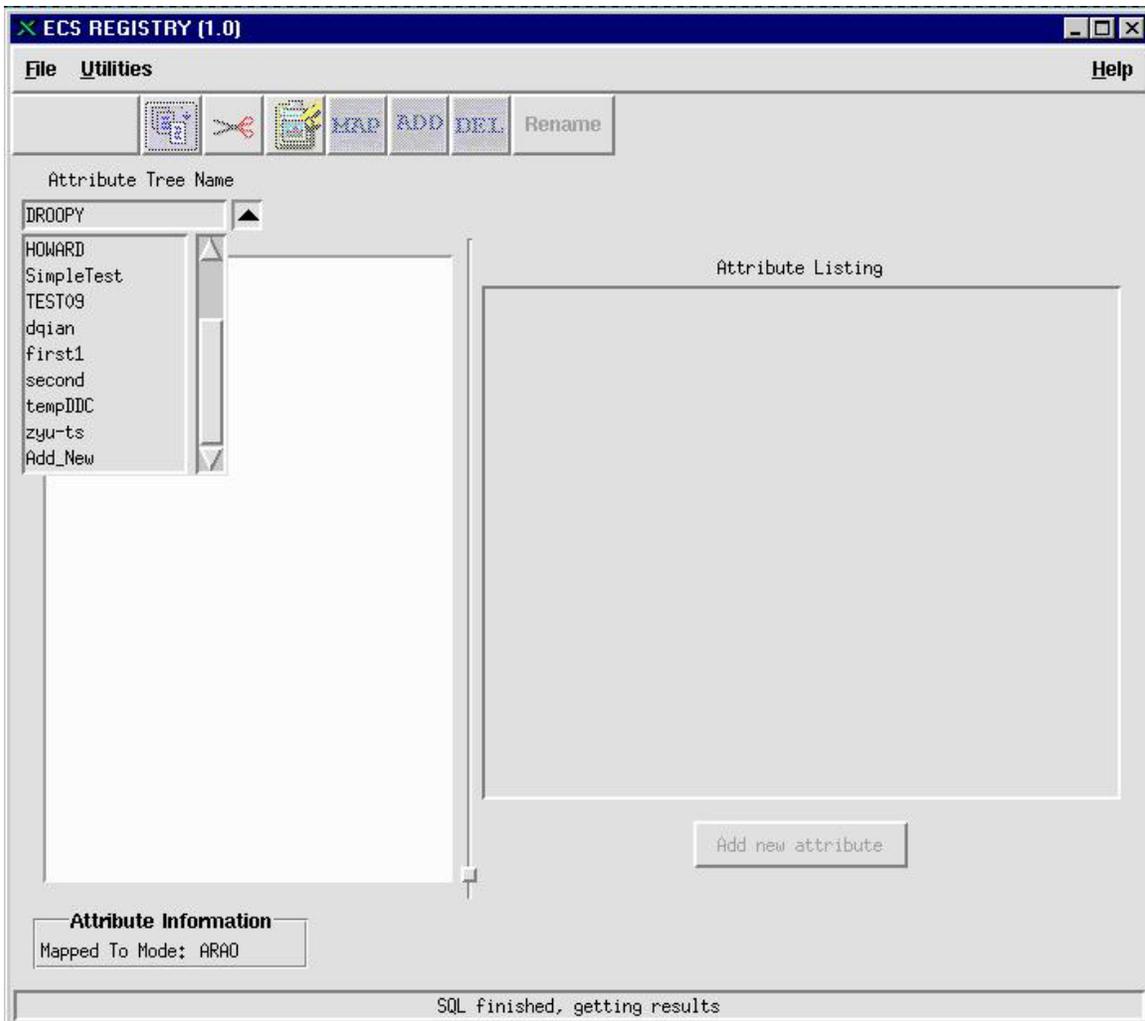


Figure 4.1.6-30. Creating a New Attribute Tree

Clicking on the element “Add_New” in the list invokes the “Creating a new attribute tree” dialog as depicted in Figure 4.1.6-31. Enter the new attribute tree name, a description and click “Ok.”

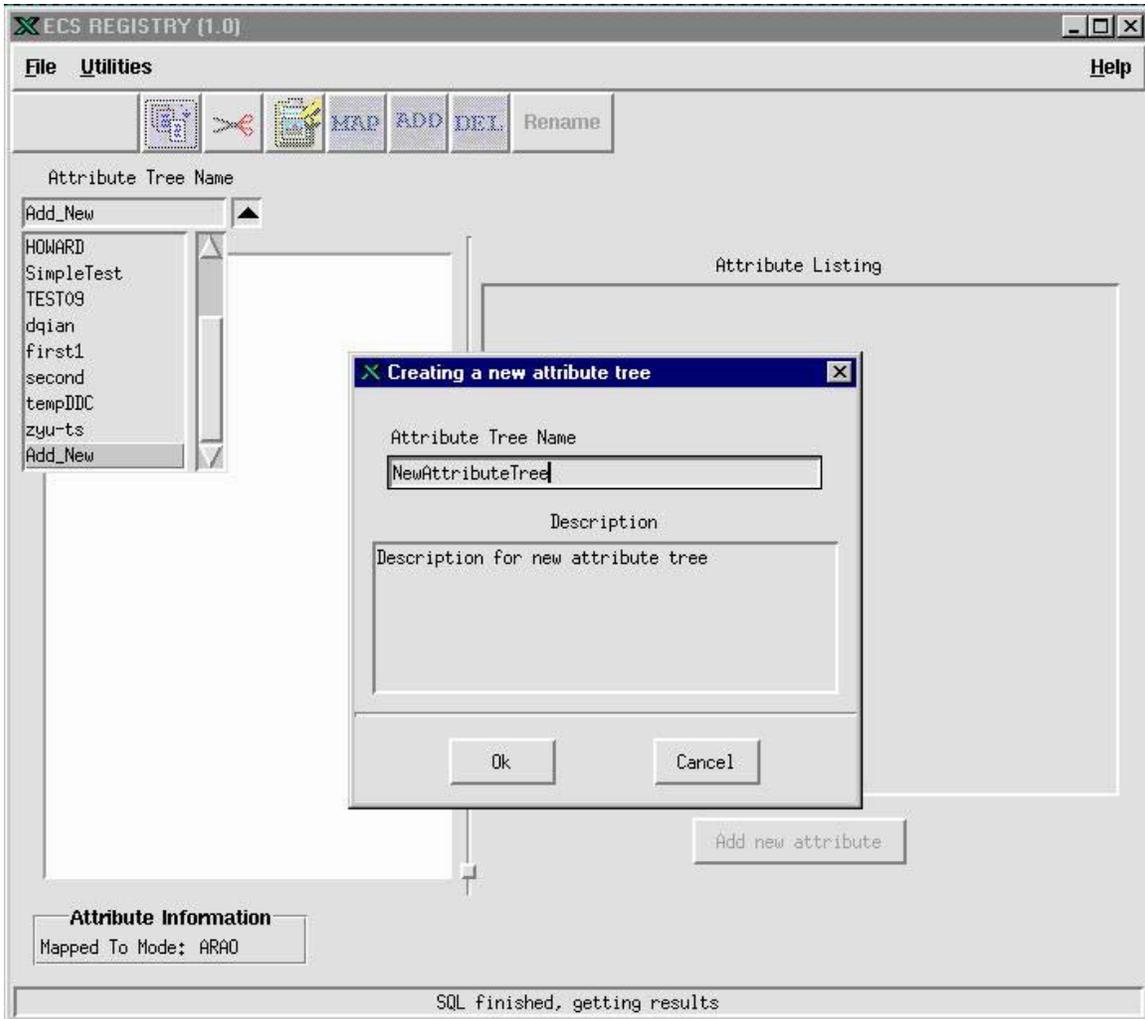


Figure 4.1.6-31. “Creating a new attribute tree” Dialog Box

Table 4.1.6-13 describes the fields in the “Create new attribute tree” dialog box.

Table 4.1.6-13. Fields in the “Creating a new attribute tree” Dialog Box

Field Name	Data Type	Size	Description
“Creating a new attribute tree”	Text	-	Dialog box title.
Attribute Name	Text	-	The user enters the name of the attribute tree.
Description	Text	-	The user enters a brief description of the attribute tree.
Ok	Button	-	Initiates the addition of the new tree.
Cancel	Button	-	Cancels the addition operation.

Figure 4.1.6-32 represents the final results when creating a new attribute tree.

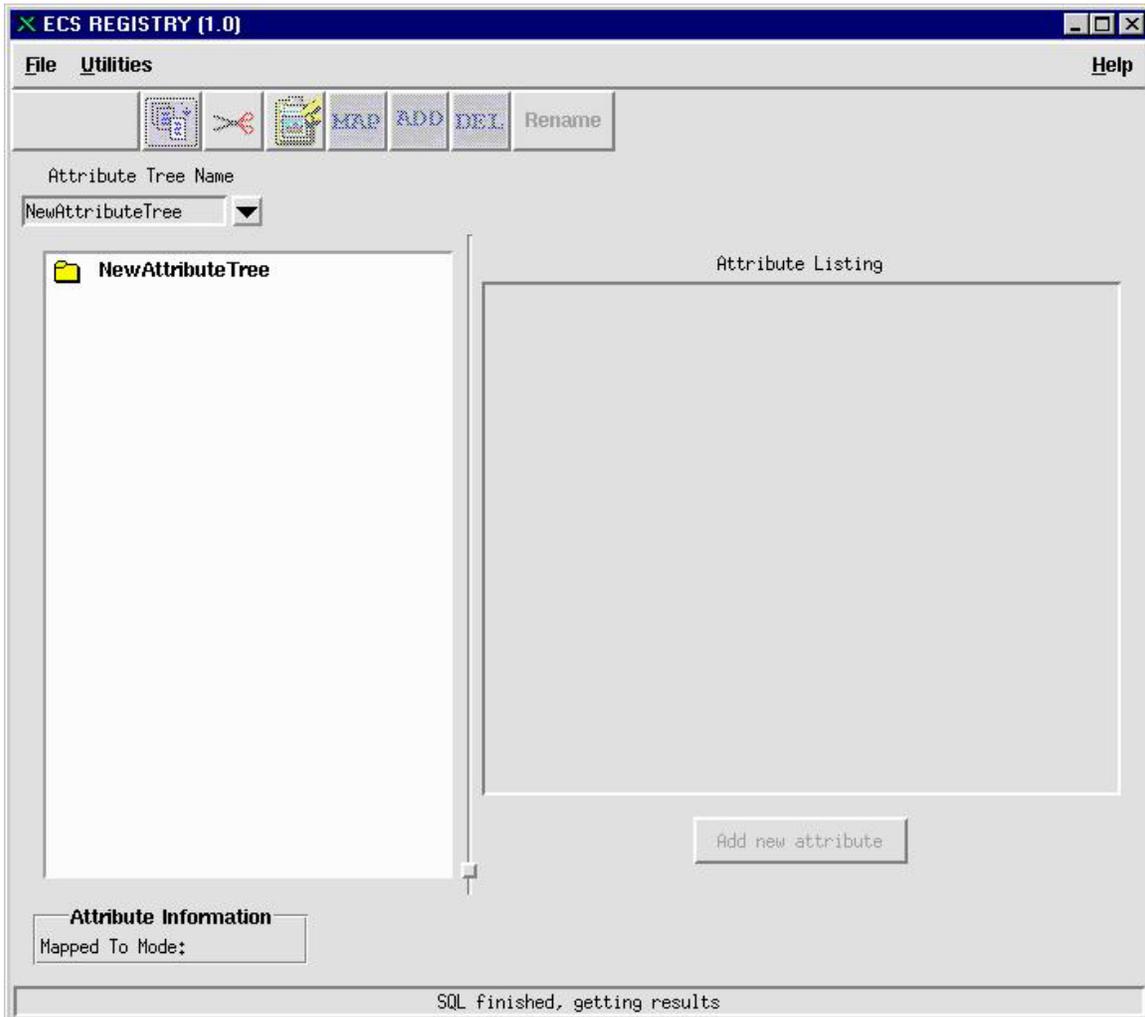


Figure 4.1.6-32. Final Result of Adding a New Attribute Tree

When the History button is enabled on the Attribute Information window (Figure 4.1.6-27), the operator can click on it resulting in a dialog presenting the historical data related to the selected attribute as shown in Figure 4.1.6-33/34.

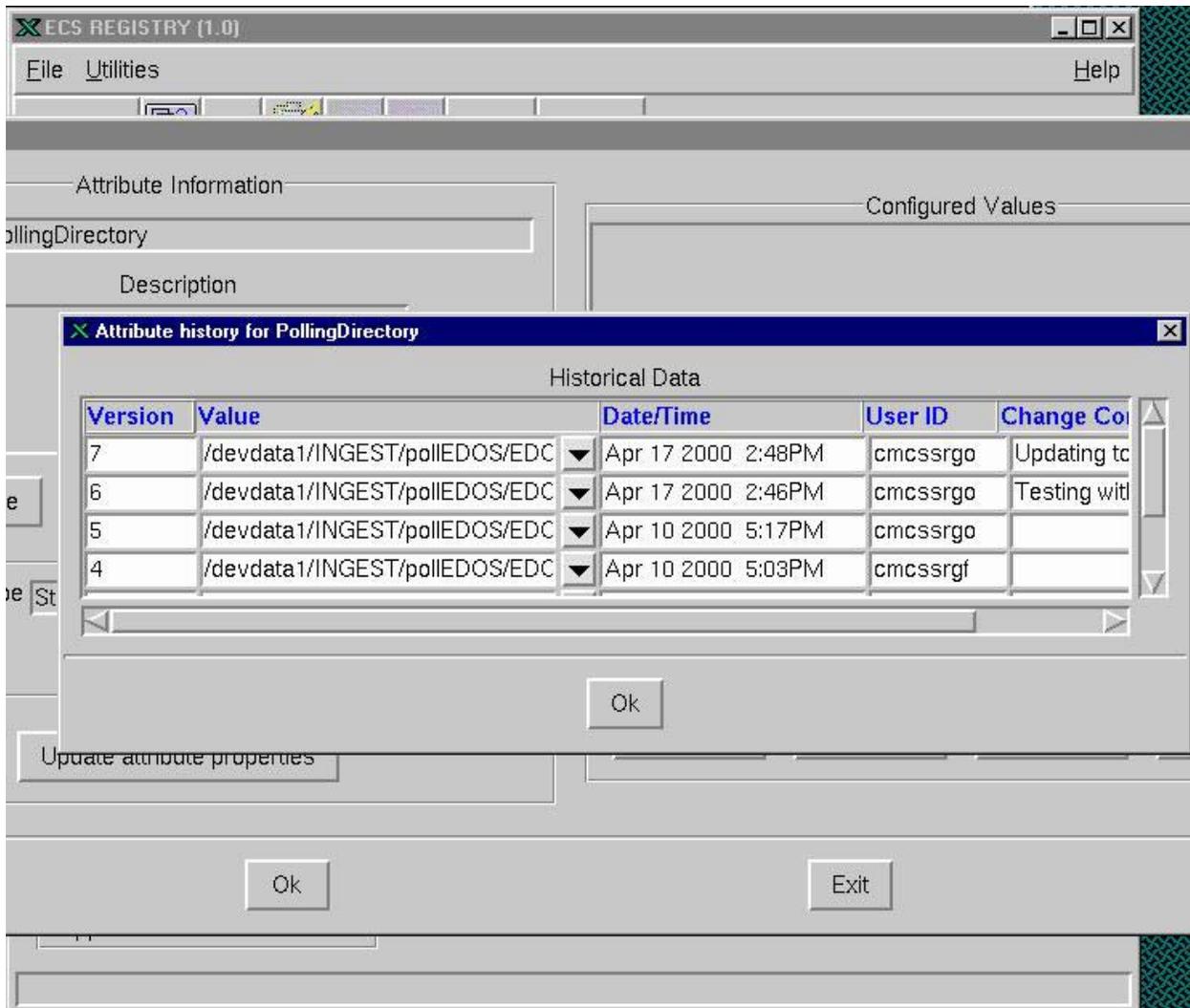


Figure 4.1.6-33. Attribute Historical Data View 1

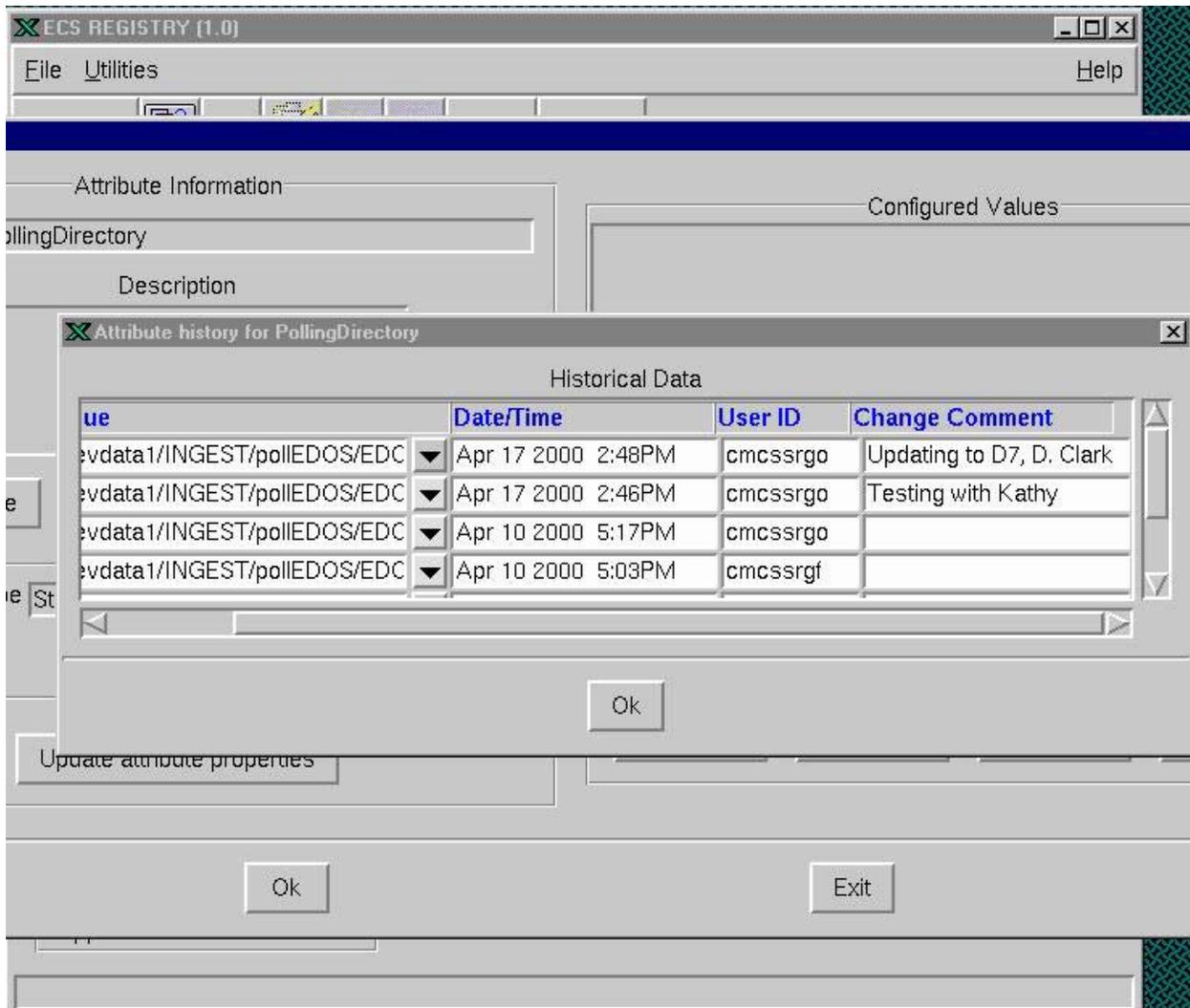


Figure 4.1.6-34. Attribute Historical Data View 2

Table 4.1.6-14 describes the Attribute Historical Data window fields.

Table 4.1.6-14. Attribute Historical Data Fields for Views 1 and 2 (1 of 2)

Field Name	Data Type	Size	Description
"Attribute history for " Attribute Name ""	Display Only	-	Window title
Historical Data	Display Only	-	Heading
Version	Display Only	-	Heading
Value	Display Only	-	Heading
Date/Time	Display Only	-	Heading

Table 4.1.6-14. Attribute Historical Data Fields for Views 1 and 2 (2 of 2)

Field Name	Data Type	Size	Description
User ID	Display Only	-	Heading
Comment	Display Only	-	Heading
Version	Read only entry field	-	Displays version number (Descending order)
Value	Read only entry field	-	List of Previous values before the change. Click arrow to review list.
Date/Time	Read only entry field	-	Displays Date and Time of change
User ID	Read only entry field	-	User ID responsible for the change
Comment	Read only entry field	-	Reason for the change. For a complete view click the "Comment" entry box. See Figure 4.1.6-35. "Reason for change dialog"

Figure 4.1.6-35 shows the Reason for Change dialog box.

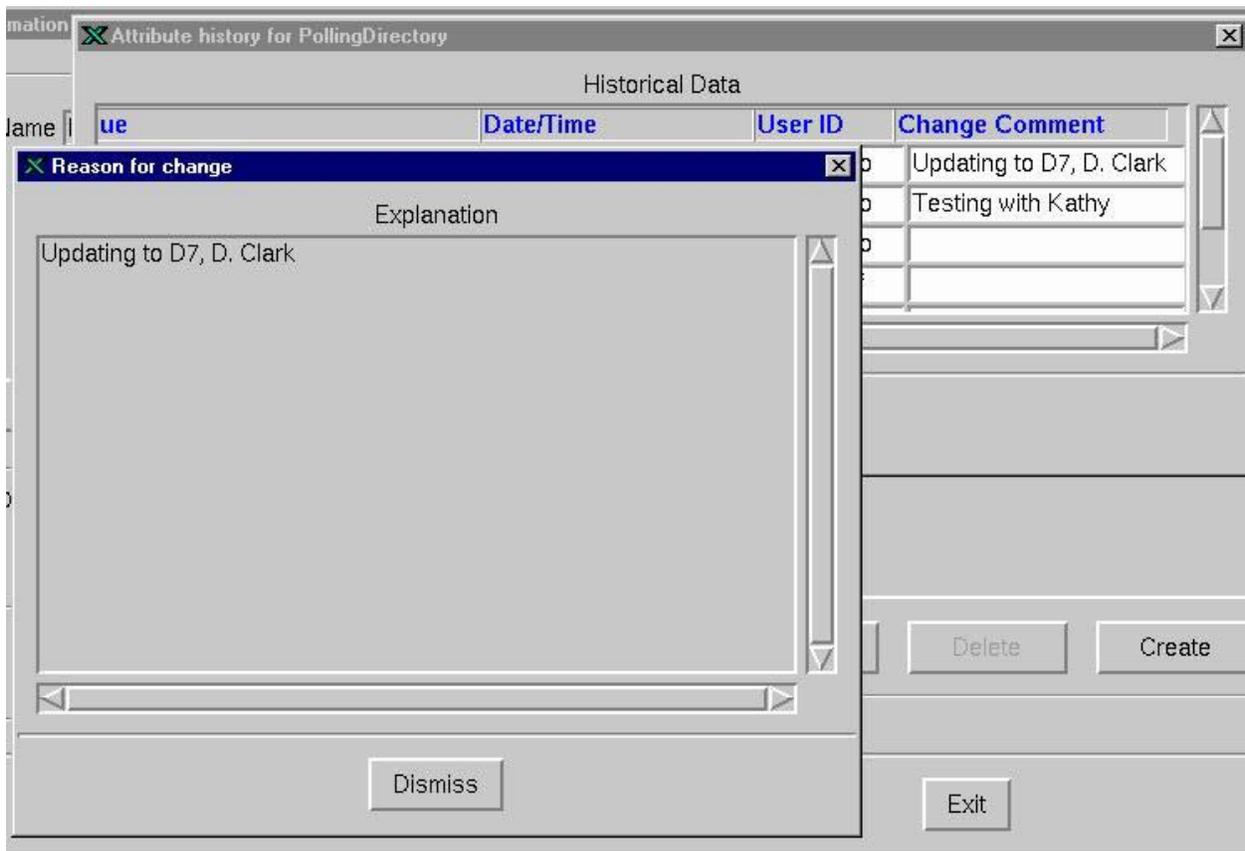


Figure 4.1.6-35. Reason for Change Dialog

Table 4.1.6-15 describes fields in the Reason for change dialog.

Table 4.1.6-15. Reason for Change

Field Name	Data Type	Size	Description
"Reason For Change"	Display Only	-	Window title
"Explanation"	Display Only	-	Heading
Text	Read only text box	-	Complete view of comment.
Dismiss	Button	-	Closes reason for change dialog

4.1.6.3 Required Operating Environment

The required operating environment is a UNIX OS on IRIX 6.5 and SUN 5.5

4.1.6.3.1 Interfaces and Data Types

Not Applicable

4.1.6.4 Database Schema

The name of the Registry database used is not fixed. DAAC management determines the name of the Registry database.

4.1.6.5 Special Constraints

The ECS Registry GUI allows only one user to write to the database at a time.

4.1.6.6 Outputs

None

4.1.6.7 Event and Error Messages

Error dialogs are displayed when mandatory fields are missing.

4.1.12.8 Reports

No reports are generated.

This page intentionally left blank.

4.1.7 Whazzup GUI

Whazzup is a tool that monitors and displays the execution status and related performance statistics associated with ECS programs. It is implemented using the Perl language and uses a CGI-based web interface to display information to the user.

4.1.7.1 Quick Start Using Whazzup

There are two programs running in the background to collect the data Whazzup displays. The first is the Perl script collecting the performance and custom application/COTS status for each host listed in the **Host Status** pull-down menu on the main screen. This script called CollectDaemon.pl, runs on host [xx]ins01 where “xx” is a site unique host-naming prefix. It collects performance statistics every 5 minutes by using a Secure Shell (SSH) call to each host. The calls are done in parallel and are executed on the "fives" of every hour (e.g., :00., :05, :10...) An additional script runs on host g0ins01 and collects information for each of the custom code servers listed in the **Verify Mode** list. This script, called ServerSizeDaemon.pl runs on the quarter of the hour (i.e., :00, :15, :30, :45).

To connect to the main GUI, enter the following URL in the browse location field:

[http://\[xx\]ins01:5150](http://[xx]ins01:5150)

If [xx]ins01 is rebooted, the following scripts need to be started as the user "allmode":

```
/home/cmshared/Wz/utilities/EcMsWzStartApacheServer
```

```
/home/cmshared/Wz/utilities/EcMsWzStartServerSizeCollection
```

```
/home/cmshared/Wz/utilities/EcMsWzStartHostStatusCollection
```

4.1.7.2 Whazzup Main Screen

Figure 4.1.7-1 is the Whazzup main screen. It provides an introductory explanation of Whazzup usage and the meaning of specific color codes used. At the bottom of the screen are the **Host Status:** and **Mode Status:** pull-down menus for selecting a configured host or mode for detailed information. The **Verify Mode:** pull-down allows for determining the status of ECS programs configured as critical. Additionally, there is the **Performance** button and the **Management** buttons. The Performance button is used to bring up the Host Performance Statistics screen. The **Management** button is used to bring up the Whazzup Management Interface screen. Finally, an **Update** button is used to manually update Whazzup displayed information.

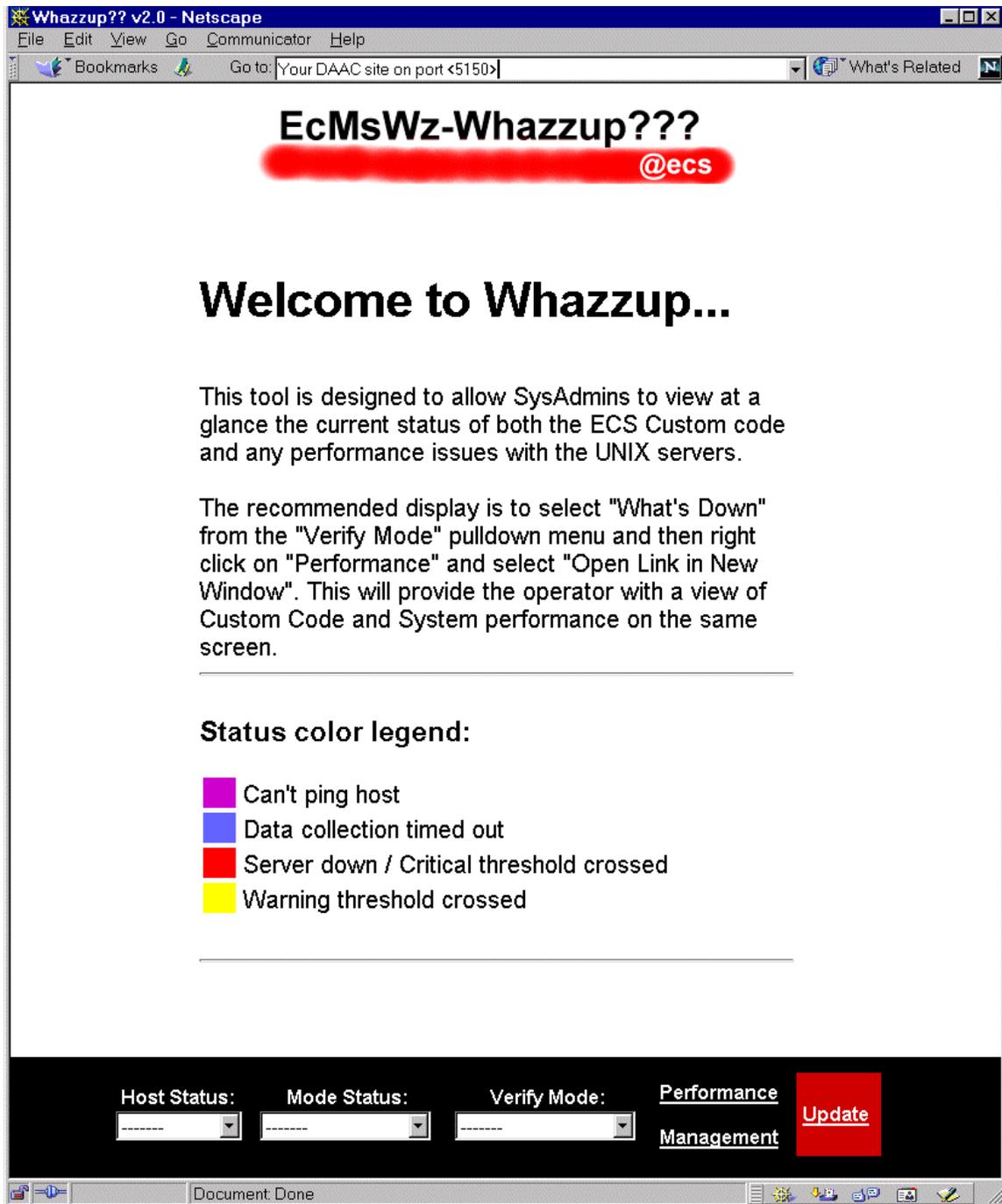


Figure 4.1.7-1. Whazzup Main Screen

4.1.7.2.1 Host Performance Statistics Screen

Figure 4.1.7-2 is the Host Performance Statistics Summary screen. It appears when the **Performance** button is pressed. The screen displays each monitored host and its associated performance information.

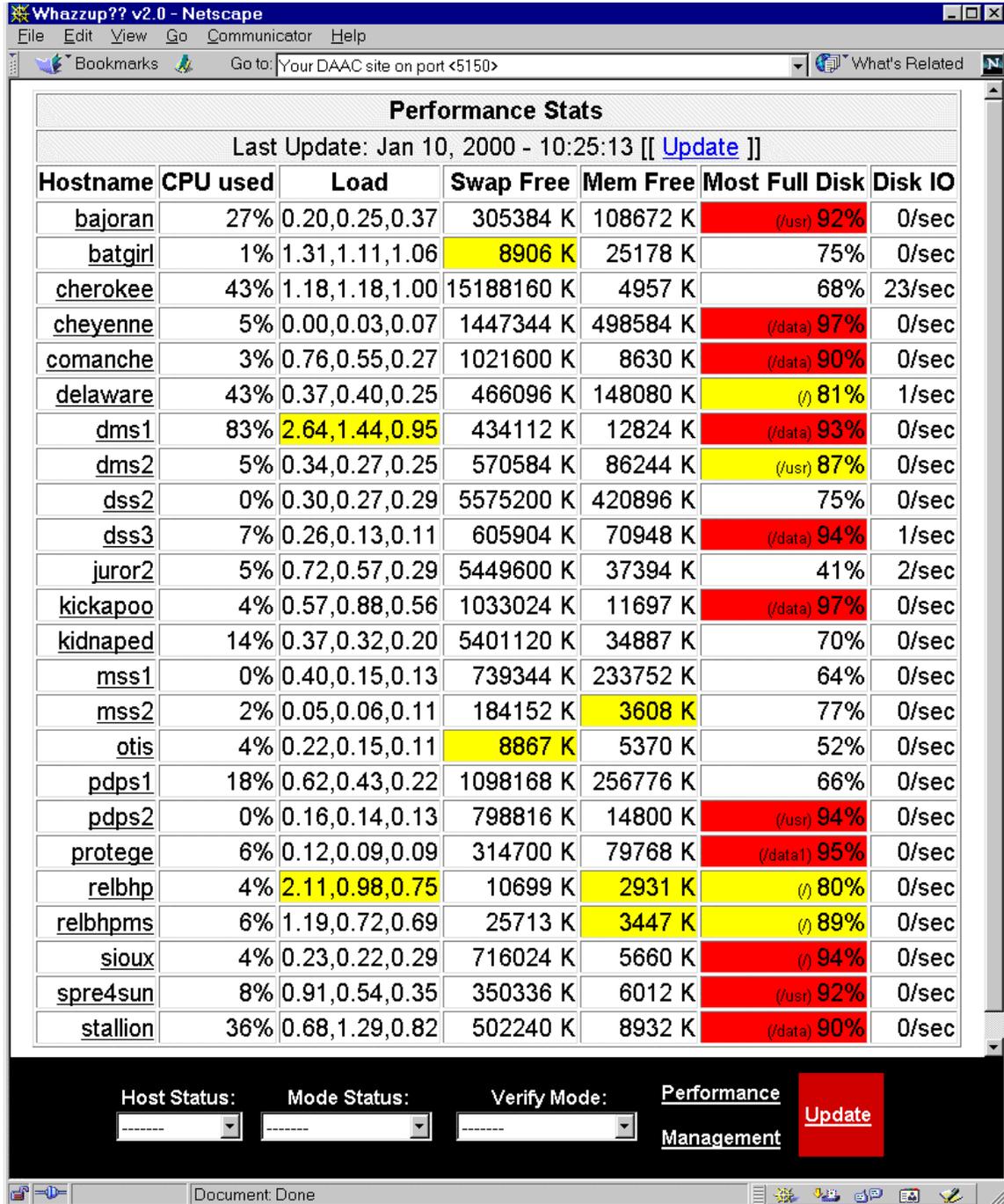


Figure 4.1.7-2. ECS Host Performance Statistics Summary Screen.

The following color codes are used for hosts and custom servers to display statuses:

Host status:

Red - Server is down / Critical threshold crossed

Yellow - Warning threshold crossed

Blue - The ssh timed out while connecting to the server

Purple - The host running the server or the host itself cannot be pinged

Performance stats:

CPU: $\geq 95\%$ - red, $\geq 90\%$ - yellow

Load: ≥ 4.0 - red, ≥ 2.0 - yellow

Free Swap: ≤ 5000 K - red, ≤ 10000 K - yellow

Most Full Disk: $\geq 90\%$ - red, $\leq 80\%$ - yellow

The status screens refresh every 2 minutes automatically. This does not change the underlying data that creates the pages. The underlying data is regenerated every 5 minutes by the collection scripts. You can force a regeneration of the data by clicking any of the **Update** links. The time stamp of the last update can be seen at the top of each status page.

Output of the daemons that collect the data presented via the web interface can be found at:

`/home/cmshared/Wz/output/HostStatus` - performance and mode status

`/home/cmshared/Wz/output/CustomServerSize/` - sever size and memory growth output

Most frequently used links are:

Performance

Verify Mode->what is down

Frequently, when monitoring the lab, we right-click on the Performance link and select "Open link in new window" and keep that off to the side and then select **Verify Mode->What's down**. This provides a quick view of what's happening on the servers and whether or not any custom code has crashed.

4.1.7.2.2 Host Performance Information Screen

Figure 4.1.7-3 shows the performance information on a specific host. It is generated when a particular host is selected on the Performance Stats screen (Figure 4.1.7-2). It gives a quick overview of what is currently happening on a machine to assist with troubleshooting.

Whazzup?? v2.0 - Netscape

File Edit View Go Communicator Help

Bookmarks Go to: Your DAAC site on port <5150> What's Related

Performance data for: mss2 Mon Jan 10 14:09:36 EST 2000

CPU / Swap utilization:
=====

procs			memory		page				disk				faults		cpu						
r	b	w	swap	free	re	mf	pi	po	fr	de	sr	f0	s0	s1	s2	in	sy	cs	us	sy	id
0	0	0	3688	3456	0	27	1	0	1	0	0	0	1	0	0	128	461	113	2	1	97
0	0	0	159960	3640	0	3	8	0	0	0	0	0	0	0	0	138	457	154	0	0	100

total: 114440k bytes allocated + 16584k reserved = 131024k used, 160136k available

Disk utilization:
=====

Filesystem	kbytes	used	avail	capacity	Mounted on
/dev/dsk/c0t0d0s0	1010590	696885	212655	77%	/
/dev/dsk/c0t0d0s3	747654	247477	425417	37%	/usr
/dev/dsk/c0t1d0s6	1759749	240024	1343755	16%	/data
/dev/dsk/c0t2d0s0	192807	115720	57807	67%	/data1
/dev/dsk/c0t2d0s5	1421382	529645	749607	42%	/data2
/dev/dsk/c0t2d0s6	339903	9	305904	1%	/data3
/dev/dsk/c0t5d0s0	1952573	983469	773854	56%	/data4

Process information:
=====

2:09pm up 82 day(s), 5:57, 4 users, load average: 0.10, 0.12, 0.11

Active processes: 102

Network information:
=====

Name	Mtu	Net/Dest	Address	Ipkts	Ierrs	Opkts	Oerrs	Collis	Queue
lo0	8232	127.0.0.0	localhost	14056372	0	14056372	0	0	0
nf0	4352	155.157.48.0	mss2.hitc.com	61818837	0	48801302	0	0	0

Top information:

Host Status: Mode Status: Verify Mode:

Performance [Update](#)

Management

Document Done

Figure 4.1.7-3. Host Performance Detail Report

4.1.7.2.3 Host Status Screen

Figure 4.1.7-4 is the Host Status screen displaying a summary of the performance statistics for the host as well as COTS software execution status and the status of the ECS applications running in each ECS mode on the host. This screen is brought up when the Host Status is selected.

The screenshot shows a Netscape browser window titled "Whazzup?? v2.0 - Netscape". The address bar shows "Go to: Your DAAC site on port <5150>". The main content area displays the following information:

mss2

Last update: Jan 10, 2000 - 10:25:13 [[Update](#)] | [[Details](#)]

Performance Stats					
CPU used	Load	Swap Free	Mem Free	Most Full Disk	Disk IO
2%	0.05,0.06,0.11	184152 K	3608 K	77%	0/sec

COTS_DCE				
Server	UID	PID	STime	Size
cdsadv	root	571	Oct_20	7560
dced	root	530	Oct_20	8232
dtstd	root	593	Oct_20	7736

COTS_TIVOLI				
Server	UID	PID	STime	Size
oserv	root	680	Oct_20	6344

DEV02				
Server	UID	PID	STime	Size
EcMsAcOrderSvr	mss	403	10:02:22	13952
EcMsAcRegUserSvr	mss	457	10:02:29	14280

DEV04				
Server	UID	PID	STime	Size
EcMsAcOrderSvr	mss	671	10:09:28	14192
EcMsAcRegUserSvr	mss	767	10:09:47	14464

Host Status:
Mode Status:
Verify Mode:
[Performance](#)
[Management](#)
Update

Document Done

Figure 4.1.7-4. Host Status Screen

4.1.7.2.4 Mode Status Screen

Figure 4.1.7-5 is the Mode Status screen. Selecting an ECS mode in the **Mode Status** pull-down menu brings up the **Mode Status** screen. It displays the execution status of all ECS servers on all hosts for the selected mode.

The screenshot shows a Netscape browser window titled "Whazzup?? v2.0 - Netscape". The address bar shows "Your DAAC site on port <5150>". The main content area is titled "DEV02" and contains a table of ECS servers. Below the table are three dropdown menus labeled "Host Status:", "Mode Status:", and "Verify Mode:". To the right of these menus are links for "Performance" and "Management", and a red "Update" button. The browser's status bar at the bottom shows "Document Done".

Server	Host	UID	PID	STime	Size
EcCIDtUserProfileGateway	bajoran	mss	22257	10:01:57	11384
EcCsEmailParser	stallion	mss	24815	10:04:29	16664
EcCsLandsat7Gateway	stallion	mss	24666	10:03:57	11068
EcCsMojoGateway	stallion	mss	24617	10:03:47	20140
EcDmDictServer	dms1	mss	22599	10:05:35	14516
EcDmEcsToV0Gateway	dms1	mss	22843	10:06:27	21760
EcDmLimServer	dms1	mss	22463	10:05:11	17856
EcDmV0ToEcsGateway	dms1	mss	22719	10:06:02	22032
EcDpPrDeletion	pdps1	mss	18760	10:04:34	28712
EcDpPrJobMgmt	pdps1	mss	18819	10:04:44	30616
EcDsDdistGui	dss2	labuser	5641	09:58:50	43248
EcDsDistributionServer	dss2	mss	8897	10:06:45	43256
EcDsHdfEosServer	cherokee	mss	7506	10:07:26	84496
EcDsHdfEosServer	cherokee	mss	7515	10:07:27	84496
EcDsHdfEosServer	cherokee	mss	7522	10:07:28	84496
EcDsScienceDataServer	dss2	mss	8670	10:06:36	109072
EcDsSt8MMServer	sioux	root	11476	10:07:25	20100
EcDsStArchiveServer	cherokee	mss	6685	10:03:20	72832
EcDsStArchiveServer	kickapoo	mss	14913	10:02:59	28064

Figure 4.1.7-5. Mode Status Screen

4.1.7.2.6 Verify Mode Screen

Figure 4.1.7-6 is the Verify Mode screen. It appears when a particular mode is selected from the **Verify Mode** pull-down menu.

The screenshot shows a Netscape browser window titled "Whazzup?? v2.0 - Netscape". The address bar shows "Your DAAC site on port <5150>". The main content area displays the "DEV02" screen. At the top, it says "Last Update: Jan 10, 2000 - 10:25:13 [[Update]]" and "Servers: 35, Up: 34, Down: 1, ??: 0". Below this is a table with the following columns: Server, Host, UID, PID, STime, and Size. The table lists various servers, with "EcCIWbJessProxyServer" highlighted in red. At the bottom of the screen, there is a control panel with "Host Status:", "Mode Status:", and "Verify Mode:" dropdown menus, a "Performance Management" link, and a red "Update" button.

Server	Host	UID	PID	STime	Size
EcCIDtUserProfileGateway	bajoran	mss	22257	10:01:57	11384
EcCIWbJessProxyServer	bajoran	-	-	-	-
EcCsEmailParser	stallion	mss	24815	10:04:29	16664
EcCsLandsat7Gateway	stallion	mss	24666	10:03:57	11068
EcCsMojoGateway	stallion	mss	24617	10:03:47	20140
EcDmDictServer	dms1	mss	22599	10:05:35	14516
EcDmEcsToV0Gateway	dms1	mss	22843	10:06:27	21760
EcDmLimServer	dms1	mss	22463	10:05:11	17856
EcDmV0ToEcsGateway	dms1	mss	22719	10:06:02	22032
EcDpPrDeletion	pdps1	mss	18760	10:04:34	28712
EcDpPrJobMgmt	pdps1	mss	18819	10:04:44	30616
EcDsDistributionServer	dss2	mss	8897	10:06:45	43256
EcDsScienceDataServer	dss2	mss	8670	10:06:36	109072
EcDsSt8MMServer	sioux	root	11476	10:07:25	20100
EcDsStArchiveServer	cherokee	mss	6685	10:03:20	72832
EcDsStArchiveServer	kickapoo	mss	14913	10:02:59	28064
EcDsStFTPClientDaemon	cherokee	mss	6469	10:01:05	8976
EcDsStFtpDisServer	cherokee	mss	7729	10:07:37	82080
EcDsStIngestFtpServer	cherokee	mss	7717	10:07:25	70228

Figure 4.1.7-6. Verify Mode Screen

The difference between the Verify Mode and Mode Status screen is subtle. Mode Status shows all custom code running in a particular mode including GUIs and non-monitored servers. The Verify Mode screen shows servers, which are not running and should be. It only lists the servers designated as important to monitor using the management interface and whether they are currently running or not. Pressing the Management button accesses the management interface.

4.1.7.2.6 Memory Growth Screen

Figure 4.1.7-7 shows an example of the window displayed after a server's size listed in the last column of Verify Mode or Mode Status is clicked. It shows memory growth over time and presents the option of viewing previous days memory usage. Additionally, this is useful for determining when a server had crashed.

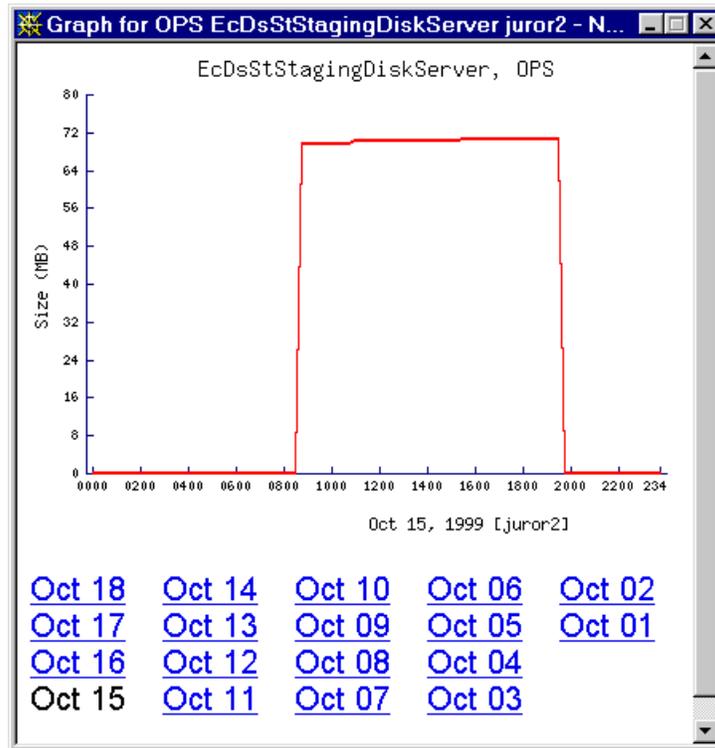


Figure 4.1.7-7. Memory Growth Screen

4.1.7.2.7 Management Interface Main Screen

Figure 4.1.7-8 is the Management screen. Pressing the Management button accesses the Management screen. It displays links to the Hosts and Modes associated with the ECS.

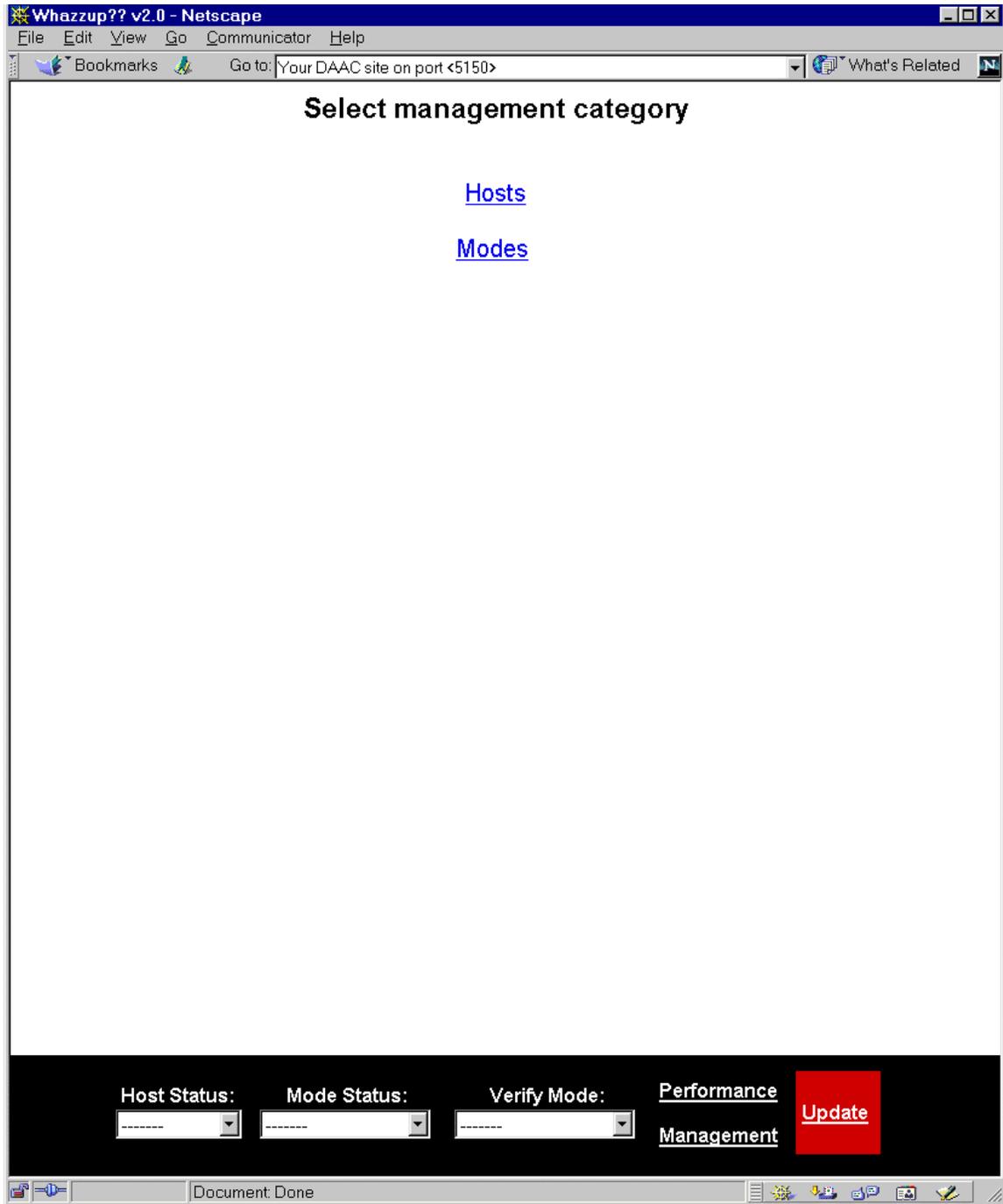


Figure 4.1.7-8. Management Screen

The management interface of Whazzup only affects the Whazzup configuration and not the ECS.

4.1.7.2.8 Manage Hosts Interface

Figure 4.1.7-9 is the Manage Hosts screen, which is accessed by clicking on the **Hosts** link on the Management Interface main screen.

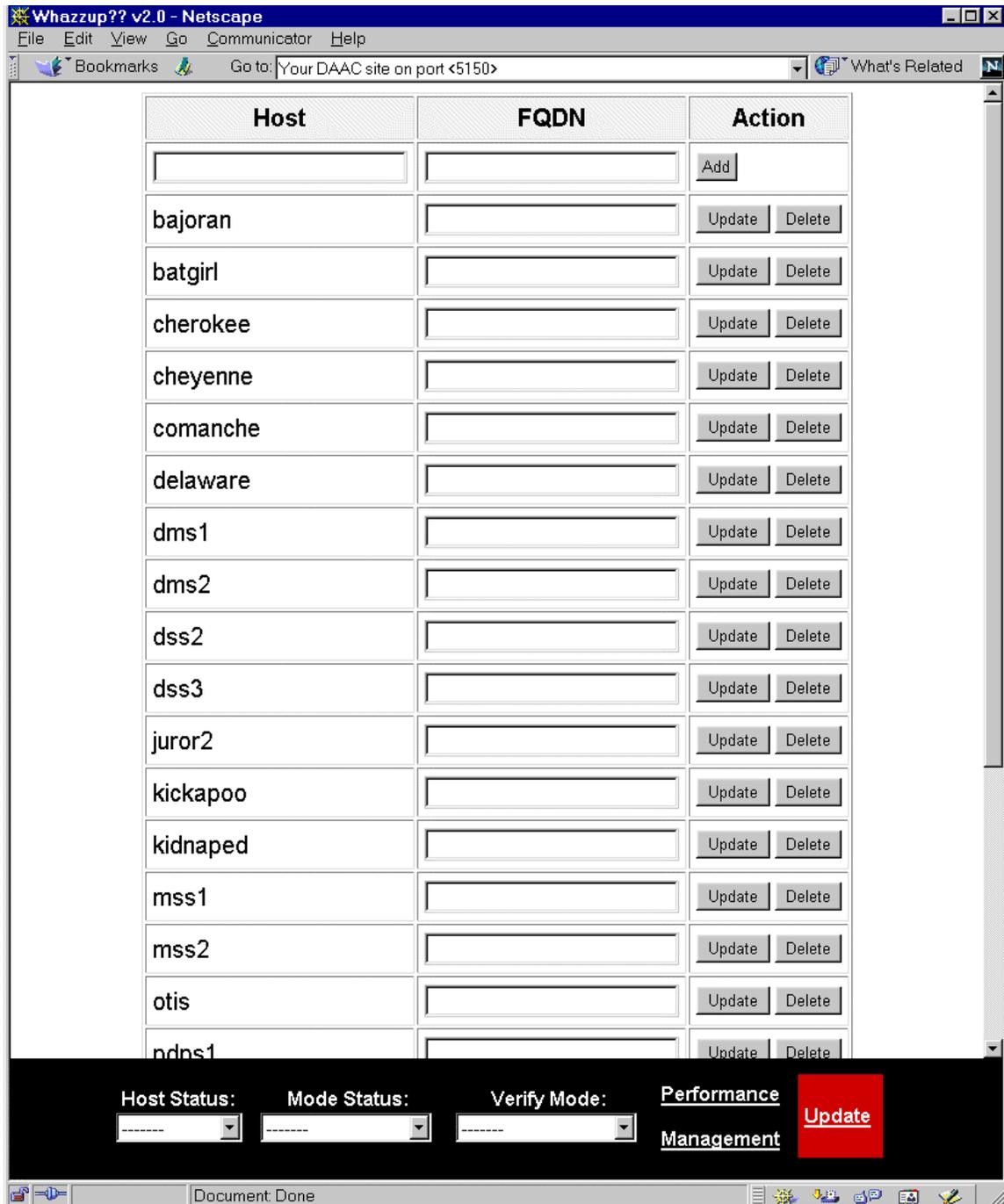


Figure 4.1.7-9. Manage Hosts Interface Screen

From here hosts can be added to the list of monitored hosts. These are the hosts displayed in the **Host Status** column of the GUI. If the host is in another domain, use a label for the host name and add a Fully Qualified Domain Name (FQDN). This allows the GUI display to be much more usable and prevents wide columns for only several machines.

4.1.7.2.9 Manage Modes Interface

Figure 4.1.7-10 is the Manage Modes interface, which is accessed by clicking on the **Modes** link on the Management Interface main screen. It lists the shared COTS products and each ECS mode supported.

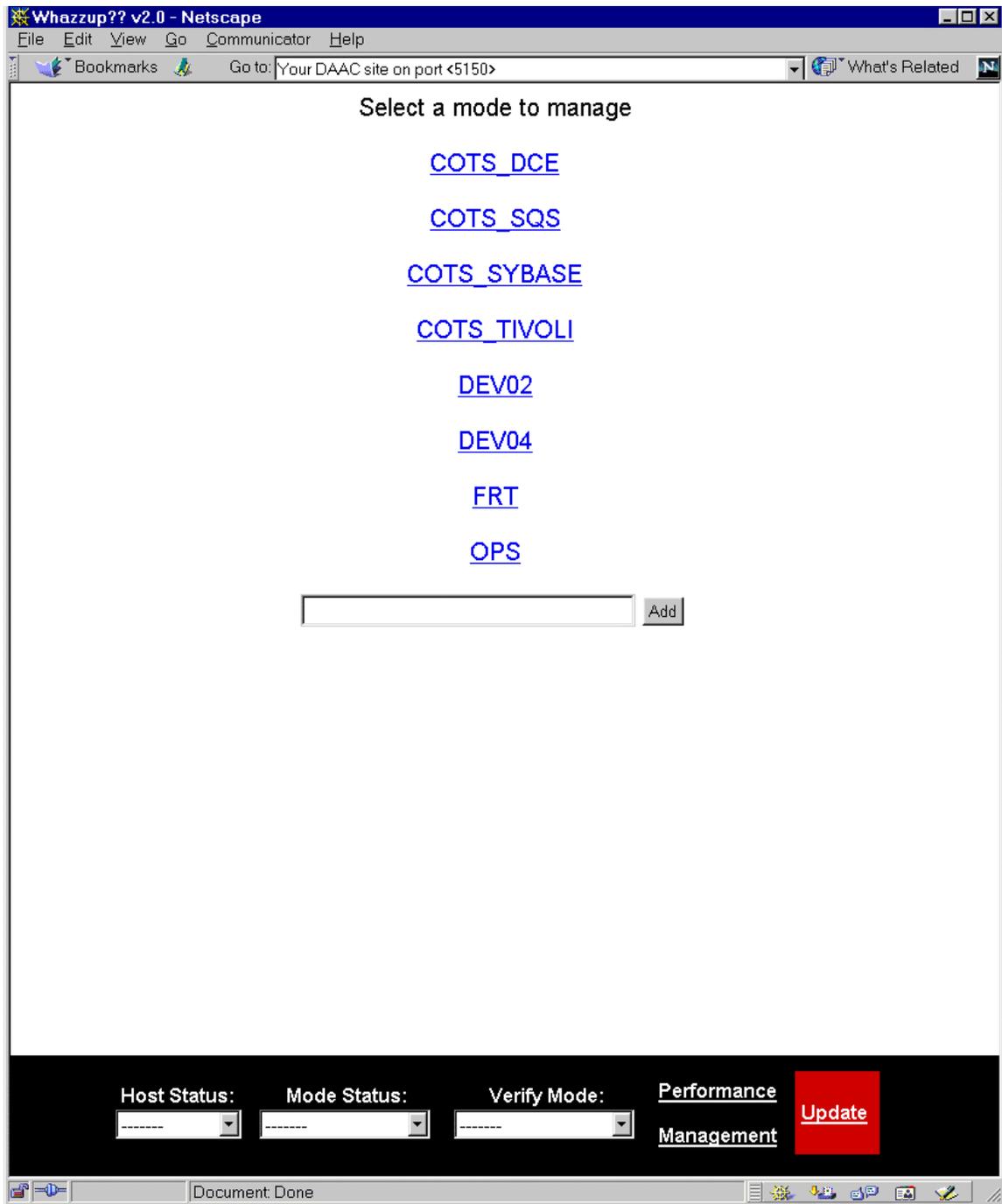


Figure 4.1.7-10. Manage Modes Interface Screen

4.1.7.2.10 Hosts Associated with Mode Screen

Figure 4.1.7-11 is the Manage Modes Interface screen, which displays the hosts configured to support a mode selected.

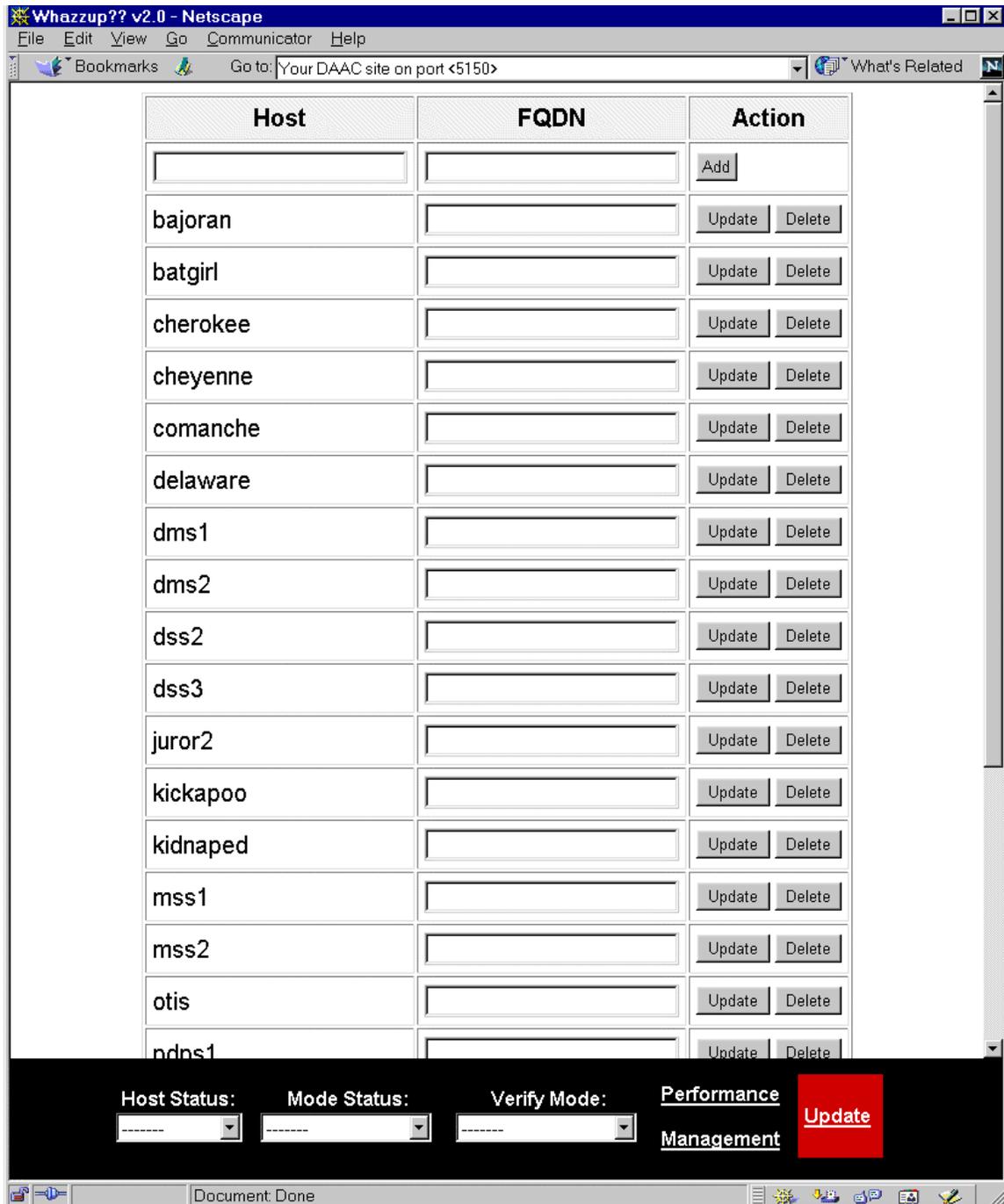


Figure 4.1.7-11. Hosts Associated with Mode Screen

4.1.7.3 Required Operating Environment

The Whazzup program uses its internal configuration file information to control status display. The following lists the steps in installing and configuring Whazzup:

Obtain the tar file EcMsWzWhazzup_v2.tar from the SMC

Login to the XXins01 machine as cmshared and extract the tar file to create the /home/cmshared/Wz directory by typing:

```
>tar xvfo EcMsWzWhazzup_v2.tar
>chgrp -R allmode Wz
```

After the /home/cmshared/Wz has been created, the configuration needs to take place. Go to the ~/Wz/conf/Wz directory:

```
>cd /home/cmshared/Wz/conf/Wz
```

There is an empty file named "monitored_hosts." Obtain a list of all hosts in the DAAC to be monitored and edit the "monitored_hosts" file to list the hosts in the following format:

```
host01:
host02:
host03:
```

That is one host per line with a colon following the shortname for the host. After this initial configuration, you can add hosts through the GUI, by clicking on the "Management" link on the menu bar of the Whazzup tool.

Now configure the cgi-bin scripts.

```
>cd /home/cmshared/Wz/cgi-bin/MSS/EcMsWzWhazzup/
>vi EcMsWzConfiguration
```

Change the \$WWW_HOST line to point to the host you are using for the web server. Also note that the configuration is setup to use ssh, which is assumed to be located in /tools/bin and it is assumed it is working correctly for the cmshared account. It is assumed that if you type "ssh <any of the hosts in the monitored_hosts file> ls" a correct listing of the home directory is returned without having to prompt for any additional passwords.

That is it for the initial configuration. Data collection can start.

```
>cd /home/cmshared/Wz/utilities
>./EcMsWzStartApacheServer
    test by browsing the URL: http://<hostname>:5150/
>./EcMsWzStartHostStatusCollection
```

test by waiting 5 minutes, then clicking on "Performance" on the whazzup page

```
>./EcMsWzStartServerSizeCollection
```

Now perform the initial population of the files in /home/cmshared/Wz/conf/Wz/mode_required to determine which custom server should be running on which hosts in a particular mode.

```
>cd /home/cmshared/Wz/scripts/initial
```

(It is assumed that "Performance" test from the previous step worked correctly)

```
>./ModeRequiredSetup.csh OPS
```

```
>./ModeRequiredSetup.csh TS1
```

```
>./ModeRequiredSetup.csh TS2
```

```
>./CotsPopulation.pl
```

Restart the Netscape browser and return to the main Whazzup page.

Click on the "Management" link. A prompt for a username and password appear. Enter:

Username: gonzales

Password: speedy

To change this username / passwd type the following:

```
>/home/cmshared/Wz/bin/htpasswd /home/cmshared/Wz/cgi-bin/MSS/EcMsWzWhazzup/management/.htpasswd gonzales
```

Through vi editing of the file, the default "gonzales" user can be deleted and any usernames you desire can be added using the htpasswd utility.

Select the "Modes" link and a list of modes are displayed. For OPS, TS1 and TS2 click on the link and verify the information is correct. There can be servers being monitored you do not wish to monitor and there can be servers needing to be added if they were not running during the initial configuration of Whazzup.

Verify the COTS_* modes are setup correctly. You may need to delete some Tivoli hosts from the initial list prepared when running the CotsPopulation.pl script. To configure COTS_SQS, add the host and "sqserver" as the server for each host that runs SQS. Do the same for COTS_SYBASE using "dataserver" for the server.

This concludes the initial configuration of Whazzup. Further adjustments to refine the list of monitored servers can be done.

Testing of the server size graphing. After starting the Server Size Collection script, wait approximately 45 minutes to make sure you have at least 2 data points collected. Now, choose a mode in the "Verify Mode" pull-down menu (other than COTS) and select a server such as ScienceDataSrvr. A graph should appear displaying the memory utilization for the chosen custom server.

4.1.7.3.1 Threshold Settings

Thresholds used in the "Performance" link are set in the file: `/home/cmshared/Wz/cgi-bin/MSS/EcMsWzWhazzup/EcMsWzThresholds`. Defaults are:

```
$CPU_WARN = 90;  
$CPU_CRIT = 95;  
$LOAD_WARN = 2.0;  
$LOAD_CRIT = 4.0;  
$SWAP_WARN = 10000;  
$SWAP_CRIT = 5000;  
$MEM_WARN = 4000;  
$MEM_CRIT = 2000;  
$MF_WARN = 80;  
$MF_CRIT = 90;  
$IO_WARN = 100;  
$IO_CRIT = 200;
```

Currently, the vi editor must be used to make changes to the thresholds in this file. This is planned to be added to the Management section in the next release of Whazzup.

To view the code used to determine the current utilization on a monitored host, view the file: `/home/cmshared/Wz/scripts/HostPerformance`.

4.1.7.3.2 Interfaces and Data Types

Whazzup interfaces through the network operating system to obtain the status of executing programs.

4.1.7.4 Databases

None

4.1.7.5 Special Constraints

None

4.1.7.6 Outputs

Whazzup outputs are the program execution status information displayed through the web.

4.1.7.7 Event and Error Messages

None

4.1.7.8 Reports

The User Account Manager application does not generate reports.